FPA
NEW ZEALAND

Fire Protection Association New Zealand

Register of Passive Fire Protection Products

ISSUE 1 | REVISION 3

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NEW ZEALAND

Register of Passive Fire Protection Products

1. Introduction

This register of certified products ("Register") lists Passive Fire Protection systems that have been formally issued with a laboratory report in accordance to AS 4072.1 – 2005, AS 1530.4-2005.

The register also includes systems tested to latest AS 1530.4-2014 standard.

The Register is published by the Fire Protection Association (New Zealand) incorporated (FPANZ).

The Register has been produced for reference by:

- ❯ Territorial Authorities
- ❯ Fire Engineers
- ❯ Architects
- ❯ Consultants
- ❯ Designers
- ❯ Installation, maintenance and inspection contractors
- ❯ Building contractors
- ❯ Building owners
- ❯ Accredited Inspection Bodies

The Register in intended to be used for both new and existing installations, to ensure code compliant products are being specified, consented, installed. The Register will provide an invaluable listing of code complaint products available to industry.

2. Legislative and Standards Background

All fire stopping systems *(fire stops)* to be specified and accepted as part of the building consent and inspection approvals process shall be in accordance with AS4072.1-2005. Fire test reports or *Variations subject to Formal Opinion* complying with the requirements of AS1530.4-2005 and AS4072.1-2005 shall be available upon request to support the system proposed and demonstrate on site installation where necessary.

3. Operation of the Register

The Register is self-regulating, each product/system supplier has submitted their product with the understanding that they will provide, upon request, the AS1530.4-2005 fire test or AS4072.1-2005 assessment report reference within their companies listing.

Any report featured in the Register of Passive Fire Protection Products will be within date.

Failure to issue the report upon request may result in that entry being removed from the Register.

4. Subscriptions and Updates

All enquiries regarding subscriptions, updates and copyright shall be referred to:

The Executive Director
Fire Protection Association NZ Inc
Private Box 302372, North Harbour
Auckland 1330

Phone: (09) 414 4450
Email: fpanz@fireprotection.org.nz

The Register of Passive Fire Protection Products is available solely as a PDF and can be accessed through the "downloads & files" at section at www.fireprotection.org.nz.

5. Charges

Charges will be made by FPANZ for new listings, and for the provision of the annual audit and amendment service as follows:

- ❯ An initial inclusion fee of $550.00
- ❯ Listing fee per product entry per supplier or manufacturer
- ❯ Annual review Fee $950.00 per supplier or manufacturer

	FPANZ Members	Non FPANZ Members
1-150 entries	$950	$1330
151-300 entries	$1450	$2030
301-450 entries	$1950	$2730
> 451 entries	$2450	$3430
Additional entries	$125	$175

6. Annual Review

Technical and administrative reviews of the Register will be undertaken annually to revalidate its contents and enable deletion of obsolete products/systems, reports outside their validity date or non-trading manufactures/suppliers.

Manufacturers and suppliers who do not return the necessary documentation after three (3) requests and/or do not pay the applicable charge(s) detailed in section 5, will have their listing marked "OBSOLETE", and after 12 months deleted.

7. Copyright

Copyright if the Register is held by FPANZ as publisher. All rights are reserved. **The Register may not be copied or reproduced in any way, either in whole or in part, without the extress permission of FPANZ.** Obtained through the Executive Director.

8. Responsibility

The individual manufacturers or suppliers are responsible for the Register listings and the accompanying fire test performance data. FPANZ simply publish the individual systems for industry awareness purposes only.

9. Disclaimer

The Register details the listing status of products and components current at the time of issue. This listing status is subject to change without notice at any time.

The currency and validity of any particular copy of Register is dependent on multiple factors, including ongoing payment of subscription fees, postal services, and timely and correct filing of updates.

Listing in this Register does not imply any warranty whatsoever by the publishers or their technical advisors as to the field performance of products, systems or components listed.

Listing in this Register does not imply any responsibility whatsoever by the publishers or their technical advisors in regards to patents or other features or conditions applying in respect of any products, systems or components listed.

Neither the publishers nor their technical advisors, nor any of their officers or employees shall be liable to any person or company for anything containers or implied in, or omitted from, this Register or any update or any part of it.

10. Listing procedures and administration of the Register

All enquiries for listing, amendments, alterations and additions to listings shall be referred to FPANZ in the first instance for administration purposes:

The Executive Director
Fire Protection Association NZ Inc
Private Box 302372, North Harbour
Auckland 1330
Phone: (09) 414 4450
Email: fpanz@fireprotection.org.nz

These details will then be passed on to an FPANZ approved listing body.

A formal Suppliers or manufacturers declaration will be required concerning the validity and accuracy of the reports detailed within the listing.

Listing is available to any supplier/manufacturer who meets the listing criteria.

Listing Criteria:

❱ AS1530.4 -2005 Fire Test Reports / AS4072.1 - 2005 Assessment Reports produced by ILAC accredited laboratories (International Laboratory Accreditation Cooperation).

❱ Fire Test Assessment reports in accordance with AS4072.1-2005

❱ Fire Test Reports in accordance with AS 1530.4-2005

❱ Reports are within date

❱ Reports featured in the Register not in the name of the listee must be accompanied by a manufacturers letter confirming the listee has permission to issue the report

❱ Suppliers / Manufactures agree to issue listed/referenced test reports upon request

11. Manufacturer's Declaration

A Suppliers or Manufacturers Declaration is a form of self-certification. It requires the Supplier or Manufacturer to make a formal declaration and to hold and maintain a technical file capable of justifying this declaration if legally challenged.

Such technical file would hold information such as supporting fire test data forming part of any formal assessment listed within the Register.

A Supplier or Manufacturers Declaration shall:

❱ Be appropriately signed on official letterhead

❱ Constitute a formal declaration of compliance with the relevant requirements of the New Zealand Building Code

❱ Detail what products are covered

❱ Acknowledge that the FPANZ or their technical advisers and officers carry no liability or responsibility for the products performance in the field

ANNEX 1 – Form of Manufacturer's Declaration of Compliance

The following Declaration of Compliance is required to be completed for all submissions. Except where expressly permitted below, no modification or variation to this Declaration will be accepted.

The wording shall be reproduced on official company/organisation letterhead with the appropriate details inserted [Where indicated thus]. Where alternatives are provided – viz manufacturer/importer, I/we etc., one alternative may be deleted as applicable.

COMPANY LETTERHEAD

Date

Address
The Executive Director
Fire Protection Association NZ Inc
Private Box 302372, North Harbour
Auckland 0751

Declaration of Compliance

*On behalf of [Name of company] **(Company)**, I confirm as follows:*

1. *This Declaration of Compliance is made in respect of the product or products currently listed in the Passive Fire Protection Products Register and complies with the listing criteria as detailed in clause 10 page 4 of the register*

2. *The Company acknowledges that the making of this Declaration is a condition to the Product being listed, or continuing to be listed in the Register*

3. *The Company agrees and acknowledges that:*

    (a) *the FPANZ gives no warranty in respect of the Product; and*

    (b) *the FPANZ, its officers, employees, contractors or agents shall not in any way be liable or responsible, whether to the Company or to third parties for the performance of the Product.*

    The Company agrees and acknowledges that:

    (a) *any listed product not complying with the requirements detailed in clause 10 can be removed from the register at the discretion of the FPANZ board without redress by from the manufacturer/importer.*

The register is intended to be a benefit to industry to improve information transparency and building code compliance

Yours faithfully
Name of Company

_____   _____
Name of duly authorised signatory   *Title*

ANNEX 2 – Form for Annual Revalidation

A copy of the current Register listing is to be sent by FPANZ to each manufacturer annually to obtain administrative revalidation of their listing and contact details, and to ensure that the manufacturer is still trading.

Each manufacturer shall be required to respond on official letterhead according to the following form:

REVALIDATION OF LISTING IN PASSIVE FIRE PROTECTION PRODUCTS REGISTER

I, on behalf of _____(name of Company) confirm that since the date of initial listing, or since the date of the last revalidation whichever is most recent, all published systems comply with the requirements detailed in clause 10 of the register.

I attach a copy of our current register listings, signed on the front page and initialed on all other pages.

Yours faithfully
Name of Company

Name of duly authorised signatory

Title

Section A: FPA Members

3M NEW ZEALAND LTD Industrial & Tapes Division

Manufacturer Code: 3M

94 Apollo Drive Rosedale Auckland 0632	Ph: 0800 474 787 Email: 3mnzitb@mmm.com www.3m.co.nz/fireprotection

The products listed in this register have all been tested to AS1530.4-2005 or Assessed to AS 4072.1-2005 as referenced within the New Zealand Building Code.

Service Penetration	Orientation	Substrate	System Description	FRR	Test Dims	Report Ref.
BLANK OPENING						
Blank	Floor	120 mm Concrete	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material.	-/240/120	Max opening 100 mm diameter	RIR FCO-3220F
Blank	Floor	150 mm Concrete	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material.	-/240/180	Max opening 100 mm diameter	RIR FCO-3220F
Blank	Floor	170 mm Concrete	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material.	-/240/240	Max opening 100 mm diameter	RIR FCO-3220F
Blank	Floor	120 mm Concrete	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material.	-/180/120	Max opening 110 mm diameter	RIR FCO-3219D
Blank	Floor	150 mm Concrete	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material.	-/180/180	Max opening 110 mm diameter	RIR FCO-3219D
Blank	Floor	120 mm Concrete	3M Fire Barrier Pillows 3M Moldable Putty MP+	-/120/90	Max opening 425 x 300 mm	RIR FCO-3217C
Blank	Wall	100 mm Plasterboard / Hollow Mansonry	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material.	-/120/120	Max opening 100 mm diameter	RIR FCO-3220F
Blank	Wall	100 mm Concrete / Solid Masonry	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material.	-/120/120	Max opening 100 mm diameter	RIR FCO-3220F
Blank	Wall	150 mm Concrete / Solid Masonry	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material.	-/180/180	Max opening 100 mm diameter	RIR FCO-3220F
Blank	Wall	170 mm Concrete / Solid Masonry	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material.	-/240/240	Max opening 100 mm diameter	RIR FCO-3220F
Blank	Wall	100 mm Plasterboard / Hollow Mansonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material.	-/120/120	Max opening 100 mm diameter	RIR FCO-3219D
Blank	Wall	100 mm Concrete / Solid Masonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material.	-/120/120	Max opening 100 mm diameter	RIR FCO-3219D
Blank	Wall	150 mm Concrete / Solid Masonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material.	-/180/180	Max opening 100 mm diameter	RIR FCO-3219D
Blank	Wall	170 mm Concrete / Solid Masonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material.	-/240/240	Max opening 100 mm diameter	RIR FCO-3219D
Blank	Wall	116 mm Plasterboard / Hollow Mansonry	3M Fire Barrier Pillows 3M Moldable Putty MP+	-/120/30	Max opening 800 x 600 mm	RIR FCO-3217C

Service Penetration	Orientation	Substrate	System Description	FRR	Test Dims	Report Ref.
BLANK OPENING						
Blank	Wall	100 mm Concrete / Solid Masonry	3M Fire Barrier Pillows 3M Moldable Putty MP+	-/180/30	Max opening 800 x 600 mm	RIR FCO-3217C
Blank	Wall	75 mm Concrete / Solid Masonry / Hebel	3M Fire Barrier Pillows 3M Moldable Putty MP+	-/180/30	Max opening 425 x 300 mm	RIR FCO-3217C
ELECTRICAL PENETRATION SERVICES						
Mixture of Power Supply & Communication Cables	Floor	120 mm Concrete	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material.	-/180/-	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 250 x 140 mm	RIR FCO-3220F
Mixture of Power Supply & Communication Cables	Floor	120 mm Concrete	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/180/90	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 250 x 140 mm	RIR FCO-3220F
Mixture of Power Supply & Communication Cables	Floor	120 mm Concrete	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/180/120	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 250 x 140 mm	RIR FCO-3220F
Communication Cables only	Floor	120 mm Concrete	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material.	-/240/30	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D2) Max opening 250 x 140 mm	RIR FCO-3220F
Communication Cables only	Floor	120 mm Concrete	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/240/90	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D2) Max opening 250 x 140 mm	RIR FCO-3220F
Communication Cables only	Floor	120 mm Concrete	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/240/120	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D2) Max opening 250 x 140 mm	RIR FCO-3220F
Mixture of Power Supply & Communication Cables	Floor	120 mm Concrete	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material.	-/120/30	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 250 x 140 mm	RIR FCO-3219D
Mixture of Power Supply & Communication Cables	Floor	120 mm Concrete	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/120/60	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 250 x 140 mm	RIR FCO-3219D
Mixture of Power Supply & Communication Cables	Floor	120 mm Concrete	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/120/120	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 250 x 140 mm	RIR FCO-3219D
Communication Cables only	Floor	120 mm Concrete	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material.	-/180/30	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D2) Max opening 250 x 140 mm	RIR FCO-3219D
Communication Cables only	Floor	120 mm Concrete	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/180/90	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D2) Max opening 250 x 140 mm	RIR FCO-3219D

Service Penetration	Orientation	Substrate	System Description	FRR	Test Dims	Report Ref.
ELECTRICAL PENETRATION SERVICES						
Communication Cables only	Floor	120 mm Concrete	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/180/120	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D2) Max opening 250 x 140 mm	RIR FCO-3219D
Mixture of Power Supply & Communication Cables	Floor	120 mm Concrete	3M Fire Barrier Pillows 3M Moldable Putty MP+ CP25WB+ Sealant	-/180/30	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 425 x 300 mm	RIR FCO-3217C
Mixture of Power Supply & Communication Cables	Floor	120 mm Concrete	3M Fire Barrier Pillows 3M Moldable Putty MP+ CP25WB+ Sealant Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300mm, each side)	-/180/90	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 425 x 300 mm	RIR FCO-3217C
Mixture of Power Supply & Communication Cables	Floor	120 mm Concrete	3M Fire Barrier Pillows 3M Moldable Putty MP+ CP25WB+ Sealant Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600mm, each side)	-/180/120	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 425 x 300 mm	RIR FCO-3217C
Power Supply cables only	Floor	120 mm Concrete	3M Fire Barrier Pillows 3M Moldable Putty MP+ CP25WB+ Sealant	-/180/30	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1) Max opening 425 x 300 mm	RIR FCO-3217C
Power Supply cables only	Floor	120 mm Concrete	3M Fire Barrier Pillows 3M Moldable Putty MP+ CP25WB+ Sealant Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300mm, each side)	-/180/90	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1) Max opening 425 x 300 mm	RIR FCO-3217C
Power Supply cables only	Floor	120 mm Concrete	3M Fire Barrier Pillows 3M Moldable Putty MP+ CP25WB+ Sealant Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600mm, each side)	-/180/120	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 425 x 300 mm	RIR FCO-3217C
Mixture of Power Supply & Communication Cables	Wall	116 mm Concrete / Solid Masonry	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material.	-/120/30	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 250 x 140 mm	RIR FCO-3220F
Mixture of Power Supply & Communication Cables	Wall	100 mm Concrete / Solid Masonry	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/120/60	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 250 x 140 mm	RIR FCO-3220F
Mixture of Power Supply & Communication Cables	Wall	100 mm Concrete / Solid Masonry	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/120/120	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 250 x 140 mm	RIR FCO-3220F
Power Supply cables only	Wall	116 mm Concrete / Solid Masonry	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material.	-/180/30	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1) Max opening 375 x 110 mm	RIR FCO-3220F
Power Supply cables only	Wall	100 mm Concrete / Solid Masonry	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/180/60	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1) Max opening 375 x 110 mm	RIR FCO-3220F

Service Penetration	Orientation	Substrate	System Description	FRR	Test Dims	Report Ref.
ELECTRICAL PENETRATION SERVICES						
Power Supply cables only	Wall	100 mm Concrete / Solid Masonry	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/180/120	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1) Max opening 375 x 110 mm	RIR FCO-3220F
Single Power Supply cable	Wall	75 mm Concrete / Solid Masonry / Hebel	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material.	-/120/120	Single Cables up to 20mm diameter Min 10 mm annular gap, Max opening 50 mm diameter	RIR FCO-3220F
Bundle of Power Cables	Wall	75 mm Concrete / Solid Masonry / Hebel	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 150 mm, each side)	-/120/120	Cable Bundles up to 80mm diameter Min 15 mm annular gap	RIR FCO-3220F
Mixture of Power Supply & Communication Cables	Wall	116 mm Concrete / Solid Masonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material.	-/120/30	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 250 x 140 mm	RIR FCO-3219D
Mixture of Power Supply & Communication Cables	Wall	100 mm Concrete / Solid Masonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/120/60	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 250 x 140 mm	RIR FCO-3219D
Mixture of Power Supply & Communication Cables	Wall	100 mm Concrete / Solid Masonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/120/120	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 250 x 140 mm	RIR FCO-3219D
Power Supply cables only	Wall	116 mm Concrete / Solid Masonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material.	-/120/30	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1) Max opening 375 x 110 mm	RIR FCO-3219D
Power Supply cables only	Wall	100 mm Concrete / Solid Masonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/120/60	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1) Max opening 375 x 110 mm	RIR FCO-3219D
Power Supply cables only	Wall	100 mm Concrete / Solid Masonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/120/120	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1) Max opening 375 x 110 mm	RIR FCO-3219D
Single Power Supply cable	Wall	75 mm Concrete / Solid Masonry / Hebel	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material.	-/120/120	Single Cables up to 20mm diameter Min 10 mm annular gap, Max opening 50 mm diameter	RIR FCO-3219D
Bundle of Power Cables	Wall	75 mm Concrete / Solid Masonry / Hebel	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 150 mm, each side)	-/120/120	Cable Bundles up to 80mm diameter Min 15 mm annular gap	RIR FCO-3219D
Mixture of Power Supply & Communication Cables	Wall	100 mm Concrete / Solid Masonry	3M Fire Barrier Pillows 3M Moldable Putty MP+	-/120/30	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 800 x 600 mm	RIR FCO-3217C
Mixture of Power Supply & Communication Cables	Wall	100 mm Concrete / Solid Masonry	3M Fire Barrier Pillows 3M Moldable Putty MP+ Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300mm, each side)	-/120/60	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 800 x 600 mm	RIR FCO-3217C
Mixture of Power Supply & Communication Cables	Wall	100 mm Concrete / Solid Masonry	3M Fire Barrier Pillows 3M Moldable Putty MP+ Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600mm, each side)	-/120/120	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 800 x 600 mm	RIR FCO-3217C

Service Penetration	Orientation	Substrate	System Description	FRR	Test Dims	Report Ref.
ELECTRICAL PENETRATION SERVICES						
Single Power Supply cable	Wall	100 mm Concrete / Solid Masonry	3M Fire Barrier Pillows 3M Moldable Putty MP+	-/120/120	Single Cables up to 20mm diameter Max opening 800 x 600 mm	RIR FCO-3217C
Bundle of Power Cables	Wall	100 mm Concrete / Solid Masonry	3M Fire Barrier Pillows 3M Moldable Putty MP+ Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 150mm, each side)	-/120/120	Cable Bundles up to 80mm diameter Max opening 800 x 600 mm	RIR FCO-3217C
Mixture of Power Supply & Communication Cables	Wall	75 mm Concrete / Solid Masonry / Hebel	3M Fire Barrier Pillows 3M Moldable Putty MP+	-/120/30	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 800 x 600 mm	RIR FCO-3217C
Mixture of Power Supply & Communication Cables	Wall	75 mm Concrete / Solid Masonry / Hebel	3M Fire Barrier Pillows 3M Moldable Putty MP+ Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300mm, each side)	-/120/60	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 800 x 600 mm	RIR FCO-3217C
Mixture of Power Supply & Communication Cables	Wall	75 mm Concrete / Solid Masonry / Hebel	3M Fire Barrier Pillows 3M Moldable Putty MP+ Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600mm, each side)	-/120/120	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 800 x 600 mm	RIR FCO-3217C
Single Power Supply cable	Wall	75 mm Concrete / Solid Masonry / Hebel	3M Fire Barrier Pillows 3M Moldable Putty MP+	-/120/120	Single Cables up to 20mm diameter Max opening 800 x 600 mm	RIR FCO-3217C
Bundle of Power Cables	Wall	75 mm Concrete / Solid Masonry / Hebel	3M Fire Barrier Pillows 3M Moldable Putty MP+ Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 150mm, each side)	-/120/120	Cable Bundles up to 80mm diameter Max opening 800 x 600 mm	RIR FCO-3217C
Mixture of Power Supply & Communication Cables	Wall	116 mm Plasterboard / Hollow Mansonry	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material.	-/120/30	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 250 x 140 mm	RIR FCO-3220F
Mixture of Power Supply & Communication Cables	Wall	100 mm Plasterboard / Hollow Mansonry	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/120/60	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 250 x 140 mm	RIR FCO-3220F
Mixture of Power Supply & Communication Cables	Wall	100 mm Fire Rated Plasterboard	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/120/120	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 250 x 140 mm	RIR FCO-3220F
Power Supply cables only	Wall	116 mm Plasterboard / Hollow Mansonry	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material.	-/180/30	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1) Max opening 375 x 110 mm	RIR FCO-3220F
Power Supply cables only	Wall	100 mm Plasterboard / Hollow Mansonry	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/180/60	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1) Max opening 375 x 110 mm	RIR FCO-3220F
Power Supply cables only	Wall	100 mm Plasterboard / Hollow Mansonry	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/180/120	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1) Max opening 375 x 110 mm	RIR FCO-3220F
Single Power Supply cable	Wall	100 mm Plasterboard / Hollow Mansonry	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material.	-/120/120	Single Cables up to 20mm diameter Min 10 mm annular gap, Max opening 50 mm diameter	RIR FCO-3220F

Service Penetration	Orientation	Substrate	System Description	FRR	Test Dims	Report Ref.
ELECTRICAL PENETRATION SERVICES						
Bundle of Power Cables	Wall	100 mm Plasterboard / Hollow Mansonry	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 150 mm, each side)	-/120/120	Cable Bundles up to 80mm diameter Min 15 mm annular gap	RIR FCO-3220F
Mixture of Power Supply & Communication Cables	Wall	116 mm Plasterboard / Hollow Mansonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material.	-/120/30	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 250 x 140 mm	RIR FCO-3219D
Mixture of Power Supply & Communication Cables	Wall	100 mm Plasterboard / Hollow Mansonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/120/60	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 250 x 140 mm	RIR FCO-3219D
Mixture of Power Supply & Communication Cables	Wall	100 mm Fire Rated Plasterboard	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/120/120	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 250 x 140 mm	RIR FCO-3219D
Power Supply cables only	Wall	116 mm Plasterboard / Hollow Mansonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material.	-/180/30	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1) Max opening 375 x 110 mm	RIR FCO-3219D
Power Supply cables only	Wall	100 mm Plasterboard / Hollow Mansonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/180/60	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1) Max opening 375 x 110 mm	RIR FCO-3219D
Power Supply cables only	Wall	100 mm Plasterboard / Hollow Mansonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/180/120	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1) Max opening 375 x 110 mm	RIR FCO-3219D
Single Power Supply cable	Wall	100 mm Plasterboard / Hollow Mansonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material.	-/120/120	Single Cables up to 20mm diameter Min 10 mm annular gap, Max opening 50 mm diameter	RIR FCO-3219D
Bundle of Power Cables	Wall	100 mm Plasterboard / Hollow Mansonry	3M Fire Barrier Pillows 3M Moldable Putty MP+ Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 150mm, each side)"	-/120/120	Cable Bundles up to 80mm diameter Min 15 mm annular gap	RIR FCO-3219D
Mixture of Power Supply & Communication Cables	Wall	116 mm Plasterboard / Hollow Mansonry	3M Fire Barrier Pillows 3M Moldable Putty MP+	-/120/30	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 800 x 600 mm	RIR FCO-3217C
Mixture of Power Supply & Communication Cables	Wall	116 mm Plasterboard / Hollow Mansonry	3M Fire Barrier Pillows 3M Moldable Putty MP+ Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300mm, each side)"	-/120/60	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 800 x 600 mm	RIR FCO-3217C
Mixture of Power Supply & Communication Cables	Wall	116 mm Plasterboard / Hollow Mansonry	3M Fire Barrier Pillows 3M Moldable Putty MP+ Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600mm, each side)"	-/120/120	Cable Bundles , with or without Cable Trays (AS1530.4 Appendix D1 & D2) Max opening 800 x 600 mm	RIR FCO-3217C
Single Power Supply cable	Wall	116 mm Plasterboard / Hollow Mansonry	3M Fire Barrier Pillows 3M Moldable Putty MP+	-/120/120	Single Cables up to 20mm diameter Max opening 800 x 600 mm	RIR FCO-3217C
Bundle of Power Cables	Wall	116 mm Plasterboard / Hollow Mansonry	3M Fire Barrier Pillows with 3M Moldable Putty MP+ Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 150mm, each side)	-/120/120	Cable Bundles up to 80mm diameter Max opening 800 x 600 mm	RIR FCO-3217C

Service Penetration	Orientation	Substrate	System Description	FRR	Test Dims	Report Ref.
ELECTRICAL PENETRATION SERVICES						
uPVC Conduit empty	Wall	75 mm Concrete / Solid Masonry / Hebel	3M Ultra GS Intumescent Strip 3M Foil Tape 425 3M Moldable Putty MP+	-/120/120	Single uPVC conduits up to 27mm diameter	RIR FCO-3220F
uPVC Conduit empty	Wall	100 mm Concrete / Solid Masonry	3M Ultra GS Intumescent Strip 3M Foil Tape 425 3M Moldable Putty MP+	-/120/120	Single PVC conduits up to 27mm diameter	RIR FCO-3220F
uPVC Conduit empty	Wall	100 mm Plasterboard / Hollow Mansonry	"3M Ultra GS Intumescent Strip 3M Foil Tape 425 3M Moldable Putty MP+	-/120/120	Single uPVC conduits up to 27mm diameter	RIR FCO-3220F
uPVC Conduit with optic fibre	Wall	75 mm Concrete / Solid Masonry / Hebel	3M Ultra GS Intumescent Strip 3M Foil Tape 425 3M Moldable Putty MP+	-/120/120	Single uPVC Conduits up to 27mm diameter (with up to 4 optic fibre cables)	RIR FCO-3220F
uPVC Conduit with optic fibre	Wall	100 mm Concrete / Solid Masonry	3M Ultra GS Intumescent Strip 3M Foil Tape 425 3M Moldable Putty MP+	-/120/120	Single uPVC Conduits up to 27mm diameter (with up to 4 optic fibre cables)	RIR FCO-3220F
uPVC Conduit with optic fibre	Wall	100 mm Plasterboard / Hollow Mansonry	3M Ultra GS Intumescent Strip 3M Foil Tape 425 3M Moldable Putty MP+	-/120/120	Single uPVC Conduits up to 27mm diameter (with up to 4 optic fibre cables)	RIR FCO-3220F
NON-INSULATED NON-COMBUSTIBLE PIPES						
Copper pipes	Floor	120 mm Concrete	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/120/60	Up to 200mm diameter, 2.05 mm max wall thickness Max 10 mm annular gap	RIR FCO-3220F
Copper pipes	Floor	120 mm Concrete	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/120/90	Up to 200mm diameter, 2.05 mm max wall thickness Max 10 mm annular gap	RIR FCO-3220F
Copper pipes	Floor	120 mm Concrete	3M Fire Barrier Pillows 3M Moldable Putty MP+	-/180/30	Up to 15mm diameter x 0.91mm wall thickness Max opening 425 x 300 mm	RIR FCO-3217C
Copper pipes	Floor	120 mm Concrete	3M Fire Barrier Pillows 3M Moldable Putty MP+ Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/180/60	Up to 15mm diameter x 0.91mm wall thickness Max opening 425 x 300 mm	RIR FCO-3217C
Copper pipes	Floor	120 mm Concrete	3M Fire Barrier Pillows 3M Moldable Putty MP+ Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/180/120	Up to 15mm diameter x 0.91mm wall thickness Max opening 425 x 300 mm	RIR FCO-3217C
Steel pipes	Floor	120 mm Concrete	3M Fire Barrier Pillows 3M Moldable Putty MP+	-/180/30	Up to 34mm diameter x 3.5mm wall thickness Max opening 425 x 300 mm	RIR FCO-3217C
Steel pipes	Floor	120 mm Concrete	3M Fire Barrier Pillows 3M Moldable Putty MP+ Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/180/60	Up to 34mm diameter x 3.5mm wall thickness Max opening 425 x 300 mm	RIR FCO-3217C

Service Penetration	Orientation	Substrate	System Description	FRR	Test Dims	Report Ref.
NON-INSULATED NON-COMBUSTIBLE PIPES						
Steel pipes	Floor	120 mm Concrete	3M Fire Barrier Pillows 3M Moldable Putty MP+ Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/180/120	Up to 34mm diameter x 3.5mm wall thickness Max opening 425 x 300 mm	RIR FCO-3217C
Copper pipes	Wall	100 mm Concrete / Solid Masonry	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/120/60	Up to 200mm diameter, 2.05 mm max wall thickness Max 10 mm annular gap	RIR FCO-3220F
Copper pipes	Wall	100 mm Concrete / Solid Masonry	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/120/90	Up to 200mm diameter, 2.05 mm max wall thickness Max 10 mm annular gap	RIR FCO-3220F
Copper pipes	Wall	100 mm Plasterboard / Hollow Mansonry	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/120/60	Up to 200mm diameter, 2.05 mm max wall thickness Max 10 mm annular gap	RIR FCO-3220F
Copper pipes	Wall	100 mm Plasterboard / Hollow Mansonry	3M Moldable Putty MP+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/120/90	Up to 200mm diameter, 2.05 mm max wall thickness Max 10 mm annular gap	RIR FCO-3220F
Copper pipes	Wall	100 mm Concrete / Solid Masonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/120/60	Up to 200mm diameter, 2.05 mm max wall thickness Max 10 mm annular gap	RIR FCO-3219D
Copper pipes	Wall	100 mm Concrete / Solid Masonry	"3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/120/90	"Up to 200mm diameter, 2.05 mm max wall thickness Max 10 mm annular gap"	RIR FCO-3219D
Copper pipes	Wall	150 mm Plasterboard / Hollow Mansonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/120/60	"Up to 200mm diameter, 2.05 mm max wall thickness Max 5 mm annular gap"	RIR FCO-3219D
Copper pipes	Wall	150 mm Plasterboard / Hollow Mansonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/120/90	"Up to 200mm diameter, 2.05 mm max wall thickness Max 5 mm annular gap"	RIR FCO-3219D
Copper pipes	Wall	116 mm Concrete / Solid Masonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material.	-/120/30	Up to 15mm diameter x 0.91mm wall thickness Max opening 65 mm diameter	RIR FCO-3219D
Copper pipes	Wall	100 mm Concrete / Solid Masonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/120/60	Up to 15mm diameter x 0.91mm wall thickness Max opening 65 mm diameter	RIR FCO-3219D
Copper pipes	Wall	100 mm Concrete / Solid Masonry	"3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/120/120	Up to 15mm diameter x 0.91mm wall thickness Max opening 65 mm diameter	RIR FCO-3219D
Copper pipes	Wall	150 mm Concrete / Solid Masonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material.	-/240/30	Up to 15mm diameter x 0.91mm wall thickness Max opening 65 mm diameter	RIR FCO-3219D
Copper pipes	Wall	150 mm Concrete / Solid Masonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/240/60	Up to 15mm diameter x 0.91mm wall thickness Max opening 65 mm diameter	RIR FCO-3219D

Service Penetration	Orientation	Substrate	System Description	FRR	Test Dims	Report Ref.
NON-INSULATED NON-COMBUSTIBLE PIPES						
Steel pipes	Wall	116 mm Concrete / Solid Masonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material.	-/120/30	Up to 34 mm diameter, with 3.5 mm pipe wall thickness, up to 114 mm diameter pipe wall thickness, Max 35 mm annular gap	RIR FCO-3219D
Steel pipes	Wall	100 mm Concrete / Solid Masonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/120/60	Up to 34 mm diameter, with 3.5 mm pipe wall thickness, up to 114 mm diameter pipe wall thickness, Max 35 mm annular gap	RIR FCO-3219D
Steel pipes	Wall	100 mm Concrete / Solid Masonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/120/120	Up to 34 mm diameter, with 3.5 mm pipe wall thickness, up to 114 mm diameter pipe wall thickness, Max 35 mm annular gap	RIR FCO-3219D
Steel pipes	Wall	150 mm Concrete / Solid Masonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material.	-/240/30	Up to 34 mm diameter, with 3.5 mm pipe wall thickness, up to 114 mm diameter pipe wall thickness, Max 35 mm annular gap	RIR FCO-3219D
Steel pipes	Wall	150 mm Concrete / Solid Masonry	3M Intumescent Sealant IC 15WB+ 100 kg/m3 Mineral Wool backing material. Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/240/120	Up to 34 mm diameter, with 3.5 mm pipe wall thickness, up to 114 mm diameter pipe wall thickness, Max 35 mm annular gap	RIR FCO-3219D
Copper pipes	Wall	116 mm Plasterboard / Hollow Mansonry	3M Fire Barrier Pillows 3M Moldable Putty MP+	-/120/30	Up to 15mm diameter x 0.91mm wall thickness Max opening 800 x 600 mm	RIR FCO-3217C
Copper pipes	Wall	116 mm Plasterboard / Hollow Mansonry	3M Fire Barrier Pillows 3M Moldable Putty MP+ Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/120/60	Up to 15mm diameter x 0.91mm wall thickness Max opening 800 x 600 mm	RIR FCO-3217C
Copper pipes	Wall	116 mm Plasterboard / Hollow Mansonry	3M Fire Barrier Pillows 3M Moldable Putty MP+ Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/120/120	Up to 15mm diameter x 0.91mm wall thickness Max opening 800 x 600 mm	RIR FCO-3217C
Steel pipes	Wall	116 mm Plasterboard / Hollow Mansonry	3M Fire Barrier Pillows 3M Moldable Putty MP+	-/120/30	Up to 34mm diameter x 3.5mm wall thickness Max opening 800 x 600 mm	RIR FCO-3217C
Steel pipes	Wall	116 mm Plasterboard / Hollow Mansonry	3M Fire Barrier Pillows 3M Moldable Putty MP+ Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/120/60	Up to 34mm diameter x 3.5mm wall thickness Max opening 800 x 600 mm	RIR FCO-3217C
Steel pipes	Wall	116 mm Plasterboard / Hollow Mansonry	3M Fire Barrier Pillows 3M Moldable Putty MP+ Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/120/120	Up to 34mm diameter x 3.5mm wall thickness Max opening 800 x 600 mm	RIR FCO-3217C
Copper pipes	Wall	100 mm Concrete / Solid Masonry	3M Fire Barrier Pillows 3M Moldable Putty MP+	-/180/30	Up to 15mm diameter x 0.91mm wall thickness Max opening 800 x 600 mm	RIR FCO-3217C

Service Penetration	Orientation	Substrate	System Description	FRR	Test Dims	Report Ref.
NON-INSULATED NON-COMBUSTIBLE PIPES						
Copper pipes	Wall	100 mm Concrete / Solid Masonry	3M Fire Barrier Pillows 3M Moldable Putty MP+ Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/180/60	Up to 15mm diameter x 0.91mm wall thickness Max opening 800 x 600 mm	RIR FCO-3217C
Copper pipes	Wall	100 mm Concrete / Solid Masonry	3M Fire Barrier Pillows 3M Moldable Putty MP+ Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/180/120	Up to 15mm diameter x 0.91mm wall thickness Max opening 800 x 600 mm	RIR FCO-3217C
Steel pipes	Wall	100 mm Concrete / Solid Masonry	3M Fire Barrier Pillows 3M Moldable Putty MP+	-/180/30	Up to 34mm diameter x 3.5mm wall thickness Max opening 800 x 600 mm	RIR FCO-3217C
Steel pipes	Wall	100 mm Concrete / Solid Masonry	3M Fire Barrier Pillows 3M Moldable Putty MP+ Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/180/60	Up to 34mm diameter x 3.5mm wall thickness Max opening 800 x 600 mm	RIR FCO-3217C
Steel pipes	Wall	100 mm Concrete / Solid Masonry	3M Fire Barrier Pillows 3M Moldable Putty MP+ Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/180/120	Up to 34mm diameter x 3.5mm wall thickness Max opening 800 x 600 mm	RIR FCO-3217C
Copper pipes	Wall	75 mm Concrete / Solid Masonry / Hebel	3M Fire Barrier Pillows 3M Moldable Putty MP+	-/180/30	Up to 15mm diameter x 0.91mm wall thickness Max opening 800 x 600 mm	RIR FCO-3217C
Copper pipes	Wall	75 mm Concrete / Solid Masonry / Hebel	3M Fire Barrier Pillows 3M Moldable Putty MP+ Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/180/60	"Up to 15mm diameter x 0.91mm wall thickness Max opening 800 x 600 mm	RIR FCO-3217C
Copper pipes	Wall	75 mm Concrete / Solid Masonry / Hebel	3M Fire Barrier Pillows 3M Moldable Putty MP+ Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/180/120	Up to 15mm diameter x 0.91mm wall thickness Max opening 800 x 600 mm	RIR FCO-3217C
Steel pipes	Wall	75 mm Concrete / Solid Masonry / Hebel	3M Fire Barrier Pillows 3M Moldable Putty MP+	-/180/30	Up to 34mm diameter x 3.5mm wall thickness Max opening 800 x 600 mm	RIR FCO-3217C
Steel pipes	Wall	75 mm Concrete / Solid Masonry / Hebel	3M Fire Barrier Pillows 3M Moldable Putty MP+ Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 300 mm, each side)	-/180/60	Up to 34mm diameter x 3.5mm wall thickness Max opening 800 x 600 mm	RIR FCO-3217C
Steel pipes	Wall	75 mm Concrete / Solid Masonry / Hebel	3M Fire Barrier Pillows 3M Moldable Putty MP+ Fire Barrier Duct Wrap 615+ (Single Layer, Wrap length 600 mm, each side)	-/180/120	Up to 34mm diameter x 3.5mm wall thickness Max opening 800 x 600 mm	RIR FCO-3217C
INSULATED NON-COMBUSTIBLE PIPES						
Copper pipes with Armaflex	Floor	120 mm Concrete	3M Fire Barrier Pillows 3M Moldable Putty MP+	-/180/30	Up to 15 mm diameter x 0.91 mm wall thickness, with 19 mm thick Armaflex through the seal, Max opening 425 x 300 mm	RIR FCO-3217C
Steel pipes with Armaflex	Floor	120 mm Concrete	3M Fire Barrier Pillows 3M Moldable Putty MP+	-/180/30	Up to 34 mm diameter x 3.5 mm wall thickness, with 19 mm thick Armaflex through the seal, Max opening 425 x 300 mm	RIR FCO-3217C

Service Penetration	Orientation	Substrate	System Description	FRR	Test Dims	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
Copper pipes with Armaflex	Wall	100 mm Concrete / Solid Masonry	3M Fire Barrier Pillows 3M Moldable Putty MP+	-/180/30	Up to 15 mm diameter x 0.91 mm wall thickness, with 19 mm thick Armaflex through the seal, Max opening 800 x 600 mm	RIR FCO-3217C
Steel pipes with Armaflex	Wall	100 mm Concrete / Solid Masonry	3M Fire Barrier Pillows 3M Moldable Putty MP+	-/180/30	Up to 34 mm diameter x 3.5 mm wall thickness, with 19 mm thick Armaflex through the seal, Max opening 800 x 600 mm	RIR FCO-3217C
Copper pipes with Armaflex	Wall	116 mm Plasterboard / Hollow Mansonry	3M Fire Barrier Pillows 3M Moldable Putty MP+	-/120/30	Up to 15 mm diameter x 0.91 mm wall thickness, with 19 mm thick Armaflex through the seal, Max opening 800 x 600 mm	RIR FCO-3217C
Steel pipes with Armaflex	Wall	116 mm Plasterboard / Hollow Mansonry	3M Fire Barrier Pillows 3M Moldable Putty MP+	-/120/30	Up to 34 mm diameter x 3.5 mm wall thickness, with 19 mm thick Armaflex through the seal, Max opening 800 x 600 mm	RIR FCO-3217C
Copper pipes with Armaflex	Wall	75 mm Concrete / Solid Masonry / Hebel	3M Fire Barrier Pillows 3M Moldable Putty MP+	-/180/30	Up to 15 mm diameter x 0.91 mm wall thickness, with 19 mm thick Armaflex through the seal, Max opening 800 x 600 mm	RIR FCO-3217C
Steel pipes with Armaflex	Wall	75 mm Concrete / Solid Masonry / Hebel	3M Fire Barrier Pillows 3M Moldable Putty MP+	-/180/30	Up to 34 mm diameter x 3.5 mm wall thickness, with 19 mm thick Armaflex through the seal, Max opening 800 x 600 mm	RIR FCO-3217C

FIRESTOP CENTRE (DISTRIBUTOR OF PROTECTA BRAND)

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FPA
NEW ZEALAND
CORPORATE BRONZE
MEMBER

The products listed in this register have all been tested to AS1530.4-2005 or Assessed to AS 4072.1-2005 as referenced within the New Zealand Building Code.

Service Penetration	Orientation	Substrate	System Description	FRR	Test Dims	Report Ref.
BLANKS						
Blank	Floor	Concrete or Aerated Concrete	2 layers Protecta FR Board 60mm double-sided positioned anywhere in the aperture.	-/180/120	Max opening 2400mm x 1200mm	Exova EWFA 51478400-A.1
Blank	Floor	Concrete or Aerated Concrete	1 layer Protecta FR Board 60mm double-sided positioned anywhere in the aperture.	-/120/90	Max opening 2400mm x 1200mm	Exova EWFA 51478400-A.1
Blank	Wall	Concrete, Aerated Concrete or Masonry	2 layers Protecta FR Board 60mm double-sided positioned anywhere in the aperture.	-/240/180	Unlimited width, Max 1200mm high	Exova EWFA 51478400-A.1
Blank	Wall	Concrete, Aerated Concrete or Masonry	1 layer Protecta FR Board 60mm double-sided positioned anywhere in the aperture.	-/240/90	Unlimited width, Max 1200mm high	Exova EWFA 51478400-A.1
Blank	Wall/Roof	Plasterboard or Concrete/AC/Masonry	1 layer Protecta FR Board 60mm double-sided friction fitted between top of wall and substrate above.	-/240/90	Unlimited width, Max 1200mm high	Exova EWFA 51478400-A.1
Blank	Wall	Plasterboard	Protecta FR Board 50mm single-sided flush with plasterboard each side of wall.	-/120/120	Unlimited width, Max 1200mm high	Exova EWFA 51478400-A.1
Blank	Wall	Plasterboard 13mm Single-layer	Protecta FR Acrylic Sealant 12.5mm each side, no backing required	-60/60	Up to 150x150mm	Exova EWFA 53619700-B.1
Blank	Wall	Plasterboard 13mm Double-layer	Protecta FR Acrylic Sealant 12.5mm each side with stone wool backing	-120/120	Up to 300x300mm	Exova EWFA 53619700-B.1
Blank	Floor	Concrete or Aerated Concrete	Protecta FR Acrylic Sealant 25mm top only or 15mm top and bottom with stone wool backing	Up to -/240/240	Up to 300x300mm	Exova EWFA 53619700-B.1
NON-INSULATED NON-COMBUSTIBLE PIPES						
Steel	Wall	Plasterboard	Protecta FR Board 50mm single-sided flush with plasterboard each side of wall.	Up to -/120/60	Up to 114mm diam	Exova EWFA 51478400-A.1
Steel	Wall	Concrete, Aerated Concrete or Masonry	Protecta FR Acrylic Sealant 15mm both sides	-/240/-	Up to 219mm diam	Exova EWFA 53619700-B.1
Steel, Copper or Alupex	Wall	Concrete, Aerated Concrete or Masonry	Protecta FR Acrylic Sealant 25mm one side only	Up to -/240/-	Steel to 219mm, Copper to 54mm, Alupex to 75mm	Exova EWFA 53619700-B.1
Steel	Wall	Plasterboard 13mm single-layer	Protecta FR Acrylic Sealant 25mm one side only	-/60/30	Up to 22mm diam	Exova EWFA 53619700-B.1

Service Penetration	Orientation	Substrate	System Description	FRR	Test Dims	Report Ref.
NON-INSULATED NON-COMBUSTIBLE PIPES						
Steel, Copper or Alupex	Wall	Plasterboard	Protecta FR Acrylic Sealant 12.5mm each side	Up to -/120/-	Steel to 219mm, Copper to 54mm, Alupex to 75mm	Exova EWFA 53619700-B.1
Steel or Copper	Floor	Concrete or Aerated Concrete from 60mm	Protecta FR Acrylic Sealant 15-25mm one side only	Up to -/240/120	Steel to 219mm, Copper to 54mm	Exova EWFA 53619700-B.1
INSULATED NON-COMBUSTIBLE PIPES						
Steel (Continuous or Interrupted)	Wall	Concrete, Aerated Concrete or Masonry	2 layers Protecta FR Board 60mm double-sided	Up to -/240/180	Up to 324mm diam	Exova EWFA 51478400-A.1
Steel or Copper (Continous or Interrupted)	Wall	Concrete, Aerated Concrete or Masonry	1 layer Protecta FR Board 60mm double-sided positioned anywhere in the aperture.	Up to -/240/240	Steel to 324mm, Copper to 54mm	Exova EWFA 51478400-A.1
Steel (Interrupted)	Floor	Concrete or Aerated Concrete from 120mm	2 layers Protecta FR Board 60mm double-sided positioned anywhere in the aperture.	-/180/60	Up to 219mm diam	Exova EWFA 51478400-A.1
Steel or Copper (Interrupted)	Floor	Concrete or Aerated Concrete from 60mm	1 layer Protecta FR Board 60mm double-sided positioned anywhere in the aperture.	Up to -/120/120	Steel to 219mm, Copper to 54mm	Exova EWFA 51478400-A.1
Steel (Combustible insulation)	Wall	Plasterboard	Protecta FR Board 50mm single-sided each side of wall, with Protecta Pipe Wrap.	Up to -/120/120	Up to 324mm diam	Exova EWFA 51478400-A.1
Steel (Continuous)	Wall	Plasterboard	Protecta FR Board 50mm single-sided flush with plasterboard each side of wall.	-/120/120	Up to 324mm diam	Exova EWFA 51478400-A.1
Steel or Alupex (Interrupted)	Wall	Plasterboard	Protecta FR Board 50mm single-sided flush with plasterboard each side of wall.	Up to -/120/120	Steel to 219mm, Alupex to 75mm	Exova EWFA 51478400-A.1
Steel, Copper or Alupex (Interrupted)	Wall	Concrete, Aerated Concrete or Masonry	Protecta FR Acrylic Sealant 25mm one side only	Up to -/240/240	Steel to 219mm, Copper to 54mm, Alupex to 75mm	Exova EWFA 53619700-B.1
Steel (Continuous)	Wall	Concrete, Aerated Concrete or Masonry	Protecta FR Acrylic Sealant 25mm one side only	-/180/180	Up to 324mm diam	Exova EWFA 53619700-B.1
Steel (Interrupted)	Wall	Concrete, Aerated Concrete or Masonry	Protecta FR Acrylic Sealant 15mm both sides	-/240/120	Up to 219mm diam	Exova EWFA 53619700-B.1
Steel (Continuous)	Wall	Concrete, Aerated Concrete or Masonry	Protecta FR Acrylic Sealant 15mm both sides	-/240/240	Up to 324mm diam	Exova EWFA 53619700-B.1
Steel (Continuous, Combustible)	Wall	Concrete, Aerated Concrete from 100mm	Protecta FR Acrylic Sealant 25mm both sides	Up to -/240/180	Up to 114mm diam	Exova EWFA 53619700-B.1
Steel (Continuous)	Wall	Plasterboard	Protecta FR Acrylic Sealant 12.5mm both sides	-/120/90	Steel to 324mm	Exova EWFA 53619700-B.1
Steel, Copper or Alupex (Interrupted)	Wall	Plasterboard	Protecta FR Acrylic Sealant 12.5mm both sides	Up to -/120/120	Steel to 219mm, Copper to 54mm, Alupex to 75mm	Exova EWFA 53619700-B.1

Service Penetration	Orientation	Substrate	System Description	FRR	Test Dims	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
Steel or Copper (Interrupted)	Floor	Concrete or Aerated Concrete from 60mm	Protecta FR Acrylic Sealant 15-25mm one side only	Up to -/240/180	Steel to 219mm, Copper to 54mm	Exova EWFA 53619700-B.1
Steel (Continuous)	Floor	Concrete or Aerated Concrete from 60mm	Protecta FR Acrylic Sealant 25mm top side only	-/240/240	Up to 324mm diam	Exova EWFA 53619700-B.1
NON-INSULATED COMBUSTIBLE PIPES						
PVC, PE, PP Pipes	Wall	Plasterboard	Collar to each side of wall	Up to -/90/60	Up to 160mm diam	Exova EWFA 51478400-B.1
PVC, PE, PP Pipes	Wall	Concrete, Aerated Concrete or Masonry	Collar to each side of wall	Up to -/240/240	Up to 160mm diam	Exova EWFA 51478400-B.1
PVC, PE, PP Pipes	Floor	Concrete or Aerated Concrete from 60mm	Collar to underside of floor	Up to -/90/60	Up to 160mm diam	Exova EWFA 51478400-B.1
PE, PP Pipes	Wall	Concrete, Aerated Concrete or Masonry	Protecta FR Acrylic Sealant 25mm both sides	Up to -/240/240	Up to 32mm diam	Exova EWFA 53619700-B.1
ELECTRICAL PENETRATION SERVICES						
Cables - single, bundled, trays, conduits	Wall	Concrete, Aerated Concrete or Masonry	2 layers Protecta FR Board 60mm double-sided	Up to -/180/120	Cables to 80mm, Bundles to 100mm	Exova EWFA 51478400-A.1
Cables - single, bundled, trays, conduits	Floor	Concrete or Aerated Concrete from 120mm	2 layers Protecta FR Board 60mm double-sided	Up to -/120/120	Cables to 80mm, Bundles to 100mm	Exova EWFA 51478400-A.1
Cables - single, bundled, trays, conduits	Floor	Concrete or Aerated Concrete from 60mm	1 layer Protecta FR Board 60mm double-sided positioned anywhere in the aperture.	Up to -/90/45	Cables to 80mm, Bundles to 100mm	Exova EWFA 51478400-A.1
Cables - single, bundled, trays, conduits	Wall	Plasterboard	1 layer Protecta FR Board 50mm single-sided flush with plasterboard each side of wall	Up to -/90/46	Cables single or bundled to 80mm	Exova EWFA 51478400-A.1
Cables - single	Wall	Concrete, Aerated Concrete or Masonry	Protecta FR Acrylic to one side of wall or anywhere inbetween	Up to -/240/120	Single cable up to 21mm	Exova EWFA 53619700-B.1
Cables - single or bundled	Wall	Concrete, Aerated Concrete or Masonry	Protecta FR Acrylic to both sides of wall	Up to -/240/240	Cables to 80mm, Bundles to 100mm	Exova EWFA 53619700-B.1
Cables - single or bundled	Wall	Plasterboard from single-layer 13mm	Protecta FR Acrylic Sealant to each side of wall	Up to -/60/45	Cables to 21mm, Bundles to 100mm	Exova EWFA 53619700-B.1
Cables - single or bundled	Wall	Plasterboard	Protecta FR Acrylic Sealant to each side of wall	Up to -/120/120	Cables to 80mm, Bundles to 100mm	Exova EWFA 53619700-B.1
Cables - single or bundled	Floor	Concrete or Aerated Concrete from 60mm	Protecta FR Acrylic Sealant 15mm to top and bottom of floor	Up to -/120/120	Single or bundled cables up to 80mm diam	Exova EWFA 53619700-B.1

Service Penetration	Orientation	Substrate	System Description	FRR	Test Dims	Report Ref.
SEISMIC/CONSTRUCTION JOINTS						
Floor joints or Floor to Wall gaps	Floor	Concrete or Aerated Concrete from 64mm	Protecta FR IPT Sealant 15mm top and bottom of floor	Up to -/240/240	Gaps/Joints up to 30mm	UL Assessment 4788415167
Floor joints or Floor to Wall gaps	Floor	Concrete or Aerated Concrete from 64mm	Protecta FR IPT Sealant 25mm at any position within floor	Up to -/240/180	Gaps/Joints up to 30mm	UL Assessment 4788415167
Wall joints or Top of Wall to Floor above	Wall	Concrete, Aerated Concrete or Masonry from 64mm	Protecta FR IPT Sealant 12.5mm each side of wall	Up to -/120/120	Gaps/Joints up to 30mm	UL Assessment 4788415167
Wall joints or Top of Wall to Floor above	Wall	Plasterboard from 13mm Single-layer	Protecta FR IPT Sealant 12.5mm each side of wall	Up to -/120/120	Gaps/Joints up to 30mm	UL Assessment 4788415167
Floor joints or Floor to Wall gaps	Floor	Concrete or Aerated Concrete from 64mm	Protecta FR ASF Sealant 25mm to top face of floor	Up to -/120/120	Gaps/Joints up to 100mm	UL Assessment 4787654631
Wall joints or Top of Wall to Floor above	Wall	Concrete, Aerated Concrete or Masonry from 90mm	Protecta FR ASF Sealant to each side of wall	Up to -/120/120	Gaps/Joints up to 30mm	UL Assessment 4787654631
Wall joints or Top of Wall to Floor above	Wall	Plasterboard from 10mm Single-layer	Protecta FR ASF Sealant to each side of wall	Up to -/120/120	Gaps/Joints up to 30mm	UL Assessment 4787654631
Wall joints or Top of Wall to Floor above	Wall	Concrete, Aerated Concrete or Masonry from 75mm	Protecta FR Acrylic Sealant to each side of wall or one side only	Up to -/240/240	Gaps/Joints up to 50mm	Exova EWFA 53619700-B.1
Wall joints or Top of Wall to Floor above	Wall	Plasterboard from 13mm Single-layer	Protecta FR Acrylic Sealant to each side of wall	Up to -/120/120	Gaps/Joints up to 30mm	Exova EWFA 53619700-B.1

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CORPORATE BRONZE
MEMBER

The products listed in this register have all been tested to AS1530.4-2005 or Assessed to AS 4072.1-2005 as referenced within the New Zealand Building Code.

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
BLANK OPENING						
40mm x 40mm Square Blank Opening, no services	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides Backlifting material optional	-/120/120	Blank opening: max. 40mm x 40mm or circular opening of equivalent size Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
150mm x 150mm Square Blank Opening, no services	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 50mm,)	-/120/120	Blank opening: max. 150mm x 150mm or circular opening of equivalent size Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Blank seal / Empty Speed sleeve	Wall	Plaster Board Wall; lined with min. 2 x 16mm Fire Rated Plasterboard on each side of stud	Hilti CFS-SL S Speed Sleeve + Hilti CFS-S ACR sealant around sleeve on each side of wall	-/120/120	Opening Size: 63 -76mm OD Annular Seal Depth min. 20mm. (See Report Ref. for full installation details)	Branz Appraisal No. 813 (2013)
Blank seal / Empty Speed sleeve	Wall	Plaster Board Wall; lined with min. 2 x 13mm Fire Rated Plasterboard on each side of stud	Hilti CFS-SL S Speed Sleeve + Hilti CFS-S ACR sealant around sleeve on each side of wall	-/120/60	Opening Size: 63 -76mm OD Annular Seal Depth min. 20mm. (See Report Ref. for full installation details)	Branz Appraisal No. 813 (2013)
Blank seal / Empty Speed sleeve	Wall	Plaster Board Wall; lined with min. 2 x 16mm Fire Rated Plasterboard on each side of stud	Hilti CFS-SL M Speed Sleeve + Hilti CFS-S ACR sealant around sleeve on each side of wall	-/120/120	Opening Size:113 -122mm OD Annular Seal Depth min. 20mm (See Report Ref. for full installation details)	Branz Appraisal No. 813 (2013)
Blank seal / Empty Speed sleeve	Wall	Plaster Board Wall; lined with min. 2 x 13mm Fire Rated Plasterboard on each side of stud	Hilti CFS-SL M Speed Sleeve + Hilti CFS-S ACR sealant around sleeve on each side of wall	-/120/60	Opening Size: 113 -122mm OD Annular Seal Depth min. 20mm (See Report Ref. for full installation details)	Branz Appraisal No. 813 (2013)
Blank Opening, no services	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Plug CFS-PL	-/120/120	Blank opening size: 52mm ≤ Ø ≤ 202mm with or without uPVC conduit sleeve Min. seal thickness: 150mm Wall cavity insulation: mineral wool Min. mineral wool thickness: 50mm Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 27937400

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
BLANK OPENING						
Blank Opening, no services	Wall	Plaster Board Wall; ; lined with min. 1 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC	-/60/60	Min. seal thickness: 200mm Max. blank opening size: 108mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100
Blank Opening, no services	Wall	Plaster Board Wall; ; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC	-/120/120	Min. seal thickness: 200mm Max. blank opening size: 108mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100
Blank Opening	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX	-/120/120	Max. opening area: 400mm x 400mm or equivalent surface area of 0.16m2 or max. diameter ≤ 400mm Min. seal thickness: 150mm (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Blank Opening	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth If necessary, Aperture Beading: 13mm or 16mm Fire Grade Plasterboard each side of stud	-/120/120	Max. opening area: 400mm x 400mm or equivalent surface area of 0.16m2 or max. diameter ≤ 400mm Min. seal thickness: 150mm (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Blank Opening, no services	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL If necessary, Aperture Beading: 13mm or 16mm Fire Grade Plasterboard each side of stud	-/120/120	Max. opening size: 1000mm x 1000mm Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) OR Aperture lined with Fire Rated Plasterboard each side of stud as required. Min. seal thickness: 200mm (See Report Ref. for full installation details)	EWFA RIR 28870-00
40mm x 40mm Square Blank Opening, no services	Wall	Rigid Wall; Concrete / Solid or Hollow Masonry (Min. Wall Thickness 75mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides Backlifting material optional	-/120/120	Blank opening: max. 40mm x 40mm or circular opening of equivalent size Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
40mm x 40mm Square Blank Opening, no services	Wall	Rigid Wall; Concrete / Solid or Hollow Masonry (Min. Wall Thickness 150mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides Backlifting material optional	-/120/120	Blank opening: max. 40mm x 40mm or circular opening of equivalent size. Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
150mm x 150mm Square Blank Opening, no services	Wall	Rigid Wall; Concrete / Solid or Hollow Masonry (Min. Wall Thickness 75mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 50mm,)	-/120/120	Blank opening: max. 150mm x 150mm or circular opening of equivalent size Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
BLANK OPENING						
150mm x 150mm Square Blank Opening, no services	Wall	Rigid Wall; Concrete / Solid or Hollow Masonry (Min. Wall Thickness 150mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 100mm,)	-/120/120	Blank opening: max. 150mm x 150mm or circular opening of equivalent size Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Blank seal / Empty Speed sleeve	Wall	Rigid Wall; Concrete / Masonry Wall (Min. Thickness 100mm)	Hilti CFS-SL S Speed Sleeve + Hilti CFS-S ACR sealant around sleeve on each side of wall	-/120/120	Opening Size: 63 -76mm OD Annular Seal Depth min. 20mm Max. wall thickness: 200mm (See Report Ref. for full installation details)	Branz Appraisal No. 813 (2013)
Blank seal / Empty Speed sleeve	Wall	Rigid Wall; Concrete / Masonry Wall (Min. Thickness 100mm)	Hilti CFS-SL M Speed Sleeve + Hilti CFS-S ACR sealant around sleeve on each side of wall	-/120/120	Opening Size: 113 -122mm OD Annular Seal Depth min. 20mm Max. wall thickness: 200mm (See Report Ref. for full installation details)	Branz Appraisal No. 813 (2013)
Blank Opening, no services	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 75mm (+ Aperture Beading))	Hilti Firestop Plug CFS-PL	-/120/120	Blank opening size: 52mm ≤ Ø ≤ 202mm with or without uPVC conduit sleeve. Min. seal thickness: 150mm Wall cavity insulation: mineral wool Min. mineral wool thickness: 50mm Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 27937400
Blank Opening, no services	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 75mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC	-/120/120	Min. seal thickness: 200mm Max. blank opening size: 108mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Blank Opening	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Solid or Hollow Masonry (Min. Wall Thickness 75mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX	-/120/120	Max. opening area: 400mm x 400mm or equivalent surface area of 0.16m2 or max. diameter ≤ 400mm Min. seal thickness: 150mm (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Blank Opening, no services	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL	-/120/120	Max. opening size: 1000mm x 1000mm Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) OR Aperture lined with Fire Rated Plasterboard each side of stud as required. Min. seal thickness: 200mm (See Report Ref. for full installation details)	EWFA RIR 28870-00
150mm x 150mm Square Blank Opening, no services	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Intumescent Sealant CP 611A on topside + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 95mm,)	-/120/120	Blank opening: max. 150mm x 150mm or circular opening of equivalent size Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
150mm x 150mm Square Blank Opening, no services	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Intumescent Sealant CP 611A on topside + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 125mm,)	-/120/120	Blank opening: max. 150mm x 150mm or circular opening of equivalent size Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
BLANK OPENING						
Blank seal / Empty sleeve	Floor	Rigid Floor; Concrete Floor (Min. Floor Thickness 150mm)	Hilti CFS-SL S Speed Sleeve + Hilti CFS-S ACR sealant around sleeve on each side of wall	-/120/120	Opening Size: 63 -76mm Annular Seal Depth min. 20mm Max. wall thickness: 200mm (See Report Ref. for full installation details)	Branz Appraisal No. 813 (2013)
Blank seal / Empty sleeve	Floor	Rigid Floor; Concrete Floor (Min. Floor Thickness 150mm)	Hilti CFS-SL M Speed Sleeve + Hilti CFS-S ACR sealant around sleeve on each side of wall	-/120/120	Opening Size: 113 -122mm Annular Seal Depth min. 20mm Max. wall thickness: 200mm (See Report Ref. for full installation details)	Branz Appraisal No. 813 (2013)
Blank seal / Empty sleeve	Floor	Rigid Floor; Concrete Floor (Min. Floor Thickness 150mm)	Hilti CFS-SL M Speed Sleeve + Hilti CFS-S ACR sealant around sleeve on each side of wall	-/120/120	Opening Size: 113 -122mm Annular Seal Depth min. 20mm Max. wall thickness: 200mm (See Report Ref. for full installation details)	Branz Appraisal No. 813 (2013)
Blank Opening	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/120	Min. seal thickness: 150mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Blank Opening, no services	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Plug CFS-PL	-/120/120	Min. seal thickness: 150mm Blank opening size: 52mm ≤ Ø ≤ 202mm, with or without uPVC conduit sleeve (See Report Ref. for full installation details)	EWFA RIR 27937400
Blank Opening, no services	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on each side	-/120/120	Max. blank opening size: 108mm Min. seal thickness: 250mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Blank Opening, no services	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on underside only	-/120/120	Max. blank opening size: 108mm Min. seal thickness: 250mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side Gap fully filled with Hilti Mortar CP 633 in the upper part of the collar (See Report Ref. for full installation details)	EWFA RIR 38022100
Blank Opening	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/120	Max. opening area: 400mm x 400mm or equivalent surface area of 0.16m2 or max. diameter ≤ 400mm Min. seal thickness: 150mm (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Blank Opening without support	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL	-/120/60	Max. opening size: 1000mm x 700mm Min. seal thickness: 200mm (See Report Ref. for full installation details)	EWFA RIR 28870-00
Blank Opening, without Support	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL	-/120/120	Max. opening size: 500mm x 700mm Min. seal thickness: 200mm (See Report Ref. for full installation details)	EWFA RIR 28870-00

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
BLANK OPENING						
Blank Opening with support	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL	-/120/120	Max. opening size: 1000mm x 1000mm Min. seal thickness: 200mm (See Report Ref. for full installation details)	EWFA RIR 28870-00
Copper or Ferrous (steel and iron) pipes Ø100-125mm × 1.42mm (min.) Ø125-150mm × 1.63mm (min.)	Wall	4hr Rigid Wall; 230mm Thick Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 230mm (Including Aperture Beading))	Hilti CP 606 sealant + PE foam backing rod	-/240/-	Annular gap width: 5mm to 20mm Min. seal thickness: 230mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
Copper, Ferrous or Brass pipes Up to Ø65mm × 0.91mm (min.) Ø80-100mm × 1.22mm (min.)	Wall	4hr Rigid Wall; 230mm Thick Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 230mm (Including Aperture Beading))	Hilti CP 606 sealant + PE foam backing rod	-/240/-	Annular gap width: 5mm to 20mm Min. seal thickness: 230mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
Copper, Ferrous or Brass pipes Up to Ø65mm × 0.91mm (min.) Ø80-100mm × 1.22mm (min.)	Wall	4hr Rigid Wall; 230mm Thick Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 230mm (Including Aperture Beading))	Hilti CP 606 Acyrelic Sealant + PE foam backing rod + Protective insulation: 38mm or 50mm Bradford Fibertex 450 Rockwool for 600mm each side of the wall. Note: Insulation should not be sustained through the wall opening.	-/240/120	Annular gap width: 5mm to 20mm Min. seal thickness: 230mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
Copper or Ferrous (steel and iron) pipes Ø100-125mm × 1.42mm (min.) Ø125-150mm × 1.63mm (min.)	Wall	4hr Rigid Wall; 230mm Thick Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 230mm (Including Aperture Beading))	Hilti CP 606 Acyrelic Sealant + PE foam backing rod + Protective insulation: 38mm or 50mm Bradford Fibertex 450 Rockwool for 600mm each side of the wall. Note: Insulation should not be sustained through the wall opening.	-/240/120	Annular gap width: 5mm to 20mm Min. seal thickness: 230mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
Copper, Ferrous or Brass pipes Up to Ø65mm × 0.91mm (min.) Ø80-100mm × 1.22mm (min.)	Wall	2hr Rigid Wall; 150mm Thick Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 150mm (Including Aperture Beading))	Hilti CP 606 sealant + PE foam backing rod	-/120/-	Annular gap width: 5mm to 20mm Min. seal thickness: 150mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
Copper or Ferrous (steel and iron) pipes Ø100-125mm × 1.42mm (min.) Ø125-150mm × 1.63mm (min.)	Wall	2hr Rigid Wall; 150mm Thick Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 150mm(Including Aperture Beading))	Hilti CP 606 sealant + PE foam backing rod	-/120/-	Annular gap width: 5mm to 20mm Min. seal thickness: 150mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
Copper, Ferrous or Brass pipes Up to Ø65mm × 0.91mm (min.) Ø80-100mm × 1.22mm (min.)	Wall	2hr Rigid Wall; 150mm Thick Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 150mm (Including Aperture Beading))	Hilti CP 606 Acyrelic Sealant + PE foam backing rod + Protective insulation: 38mm or 50mm Bradford Fibertex 450 Rockwool for 600mm each side of the wall. Note: Insulation should not be sustained through the wall opening.	-/120/120	Annular gap width: 5mm to 20mm Min. seal thickness: 150mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
NON-INSULATED NON-COMBUSTIBLE PIPES						
Copper or Ferrous (steel and iron) pipes Ø100-125mm × 1.42mm (min.) Ø125-150mm × 1.63mm (min.)	Wall	2hr Rigid Wall; 150mm Thick Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 150mm (Including Aperture Beading))	Hilti CP 606 Acyrelic Sealant + PE foam backing rod + Protective insulation: 38mm or 50mm Bradford Fibertex 450 Rockwool for 600mm each side of the wall. Note: Insulation should not be sustained through the wall opening.	-/120/120	Annular gap width: 5mm to 20mm Min. seal thickness: 150mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
Copper, Ferrous or Brass pipes Up to Ø65mm × 0.91mm (min.) Ø80-100mm × 1.22mm (min.)	Wall	2hr Rigid Wall;Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 100mm (Including Aperture Beading))	Hilti CP 606 Acyrelic Sealant + PE foam backing rod + Protective insulation: 38mm or 50mm Bradford Fibertex 450 Rockwool for 600mm each side of the wall. Note: Insulation should not be sustained through the wall opening.	-/120/120	Annular gap width: 5mm to 20mm Min. seal thickness: 100mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
Copper or Ferrous (steel and iron) pipes Ø100-125mm × 1.42mm (min.) Ø125-150mm × 1.63mm (min.)	Wall	2hr Rigid Wall; Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 100mm (Including Aperture Beading))	Hilti CP 606 Acyrelic Sealant + PE foam backing rod + Protective insulation: 38mm or 50mm Bradford Fibertex 450 Rockwool for 600mm each side of the wall. Note: Insulation should not be sustained through the wall opening.	-/120/120	Annular gap width: 5mm to 20mm Min. seal thickness: 100mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
Copper, Ferrous or Brass pipes Up to Ø65mm × 0.91mm (min.) Ø80-100mm × 1.22mm (min.)	Wall	1.5hr Rigid Wall; 150mm Thick Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 150mm (+ Aperture Beading))	Hilti CP 606 sealant + PE foam backing rod	-/90/-	Annular gap width: 5mm to 20mm Min. seal thickness: 150mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
Copper or Ferrous (steel and iron) pipes Ø100-125mm × 1.42mm (min.) Ø125-150mm × 1.63mm (min.)	Wall	1.5hr Rigid Wall; 150mm Thick Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 150mm (+ Aperture Beading))	Hilti CP 606 sealant + PE foam backing rod	-/90/-	Annular gap width: 5mm to 20mm Min. seal thickness: 150mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
Copper, Ferrous or Brass pipes Up to Ø65mm × 0.91mm (min.) Ø80-100mm × 1.22mm (min.)	Wall	1.5hr Rigid Wall; 150mm Thick Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 150mm (+ Aperture Beading))	Hilti CP 606 Acyrelic Sealant + PE foam backing rod + Protective insulation: 38mm or 50mm Bradford Fibertex 450 Rockwool for 600mm each side of the wall. Note: Insulation should not be sustained through the wall opening.	-/90/90	Annular gap width: 5mm to 20mm Min. seal thickness: 150mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
Copper or Ferrous (steel and iron) pipes Ø100-125mm × 1.42mm (min.) Ø125-150mm × 1.63mm (min.)	Wall	1.5hr Rigid Wall; 150mm Thick Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 150mm (+ Aperture Beading))	Hilti CP 606 Acyrelic Sealant + PE foam backing rod + Protective insulation: 38mm or 50mm Bradford Fibertex 450 Rockwool for 600mm each side of the wall. Note: Insulation should not be sustained through the wall opening.	-/90/90	Annular gap width: 5mm to 20mm Min. seal thickness: 150mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
Copper, Ferrous or Brass pipes Up to Ø65mm × 0.91mm (min.) Ø80-100mm × 1.22mm (min.)	Wall	1.5hr Rigid Wall; 150mm Thick Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti CP 606 Acyrelic Sealant + PE foam backing rod + Protective insulation: 38mm or 50mm Bradford Fibertex 450 Rockwool for 600mm each side of the wall. Note: Insulation should not be sustained through the wall opening.	-/90/90	Min. seal thickness: 100mm Min. depth of sealant: 20mm Annular gap width: 5mm to 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
Copper or Ferrous (steel and iron) pipes Ø100-125mm × 1.42mm (min.) Ø125-150mm × 1.63mm (min.)	Wall	1.5hr Rigid Wall; 150mm Thick Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti CP 606 Acyrelic Sealant + PE foam backing rod + Protective insulation: 38mm or 50mm Bradford Fibertex 450 Rockwool for 600mm each side of the wall. Note: Insulation should not be sustained through the wall opening.	-/90/90	Annular gap width: 5mm to 20mm Min. seal thickness: 100mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
NON-INSULATED NON-COMBUSTIBLE PIPES						
Copper, Ferrous or Brass pipes Up to Ø65mm × 0.91mm (min.) Ø80-100mm × 1.22mm (min.)	Wall	1hr Rigid Wall; 75mm Thick Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 75mm (+ Aperture Beading))	Hilti CP 606 sealant + PE foam backing rod	-/60/-	Min. seal thickness: 75mm Min. depth of sealant: 20mm Annular gap width: 5mm to 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
Copper or Ferrous (steel and iron) pipes Ø100-125mm × 1.42mm (min.) Ø125-150mm × 1.63mm (min.)	Wall	1hr Rigid Wall; 75mm Thick Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 75mm (+ Aperture Beading))	Hilti CP 606 sealant + PE foam backing rod	-/60/-	Annular gap width: 5mm to 20mm Min. seal thickness: 75mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
Copper, Ferrous or Brass pipes Up to Ø65mm × 0.91mm (min.) Ø80-100mm × 1.22mm (min.)	Wall	1hr Rigid Wall; 75mm Thick Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 75mm (+ Aperture Beading))	Hilti CP 606 Acyrelic Sealant + PE foam backing rod + Protective insulation: 38mm or 50mm Bradford Fibertex 450 Rockwool for 600mm each side of the wall. Note: Insulation should not be sustained through the wall opening.	-/60/60	Annular gap width: 5mm to 20mm Min. seal thickness: 75mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
Copper or Ferrous (steel and iron) pipes Ø100-125mm × 1.42mm (min.) Ø125-150mm × 1.63mm (min.)	Wall	1hr Rigid Wall; 75mm Thick Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 75mm (+ Aperture Beading))	Hilti CP 606 Acyrelic Sealant + PE foam backing rod + Protective insulation: 38mm or 50mm Bradford Fibertex 450 Rockwool for 600mm each side of the wall. Note: Insulation should not be sustained through the wall opening.	-/60/60	Annular gap width: 5mm to 20mm Min. seal thickness: 75mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
Copper, Ferrous or Brass pipes Up to Ø65mm × 0.91mm (min.) Ø80-100mm × 1.22mm (min.)	Wall	1.5hr Plaster Board Wall; lined with min. 2 x 13mm or min. 1 x 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 150mm (+ Aperture Beading))	Hilti CP 606 sealant + PE foam backing rod	-/90/-	Annular gap width: 5mm to 20mm Min. seal thickness: 150mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
Copper or Ferrous (steel and iron) pipes Ø100-125mm × 1.42mm (min.) Ø125-150mm × 1.63mm (min.)	Wall	1.5hr Plaster Board Wall; lined with min. 2 x 13mm or min. 1 x 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 150mm (+ Aperture Beading))	Hilti CP 606 sealant + PE foam backing rod	-/90/-	Annular gap width: 5mm to 20mm Min. seal thickness: 150mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
Copper, Ferrous or Brass pipes Up to Ø65mm × 0.91mm (min.) Ø80-100mm × 1.22mm (min.)	Wall	1.5hr Plaster Board Wall; lined with min. 2 x 13mm or min. 1 x 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 150mm (+ Aperture Beading))	Hilti CP 606 Acyrelic Sealant + PE foam backing rod + Protective insulation: 38mm or 50mm Bradford Fibertex 450 Rockwool for 600mm each side of the wall. Note: Insulation should not be sustained through the wall opening.	-/90/90	Annular gap width: 5mm to 20mm Min. seal thickness: 150mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
Copper or Ferrous (steel and iron) pipes Ø100-125mm × 1.42mm (min.) Ø125-150mm × 1.63mm (min.)	Wall	1.5hr Plaster Board Wall; lined with min. 2 x 13mm or min. 1 x 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 150mm (+ Aperture Beading))	Hilti CP 606 Acyrelic Sealant + PE foam backing rod + Protective insulation: 38mm or 50mm Bradford Fibertex 450 Rockwool for 600mm each side of the wall. Note: Insulation should not be sustained through the wall opening.	-/90/90	Annular gap width: 5mm to 20mm Min. seal thickness: 150mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
Copper, Ferrous or Brass pipes Up to Ø65mm × 0.91mm (min.) Ø80-100mm × 1.22mm (min.)	Wall	1.5hr Plaster Board Wall; lined with min. 2 x 13mm or min. 1 x 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti CP 606 Acyrelic Sealant + PE foam backing rod + Protective insulation: 38mm or 50mm Bradford Fibertex 450 Rockwool for 600mm each side of the wall. Note: Insulation should not be sustained through the wall opening.	-/90/90	Annular gap width: 5mm to 20mm Min. seal thickness: 100mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
NON-INSULATED NON-COMBUSTIBLE PIPES						
Copper or Ferrous (steel and iron) pipes Ø100-125mm × 1.42mm (min.) Ø125-150mm × 1.63mm (min.)	Wall	1.5hr Plaster Board Wall; lined with min. 2 x 13mm or min. 1 x 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti CP 606 Acyrelic Sealant + PE foam backing rod + Protective insulation: 38mm or 50mm Bradford Fibertex 450 Rockwool for 600mm each side of the wall. Note: Insulation should not be sustained through the wall opening.	-/90/90	Annular gap width: 5mm to 20mm Min. seal thickness: 100mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
Copper, Ferrous or Brass pipes Up to Ø65mm × 0.91mm (min.) Ø80-100mm × 1.22mm (min.)	Wall	1h Plaster Board Wall; lined with min. 2 x 13mm or min. 1 x 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 75mm (Including Aperture Beading))	Hilti CP 606 sealant + PE foam backing rod	-/60/-	Annular gap width: 5mm to 20mm Min. seal thickness: 75mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
Copper or Ferrous (steel and iron) pipes Ø100-125mm × 1.42mm (min.) Ø125-150mm × 1.63mm (min.)	Wall	1h Plaster Board Wall; lined with min. 2 x 13mm or min. 1 x 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 75mm Including Aperture Beading)	Hilti CP 606 sealant + PE foam backing rod	-/60/-	Annular gap width: 5mm to 20mm Min. seal thickness: 75mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
Copper, Ferrous or Brass pipes Up to Ø65mm × 0.91mm (min.) Ø80-100mm × 1.22mm (min.) "	Wall	1h Plaster Board Wall; lined with min. 2 x 13mm or min. 1 x 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 75mm (including Aperture Beading))	Hilti CP 606 Acyrelic Sealant + PE foam backing rod + Protective insulation: 38mm or 50mm Bradford Fibertex 450 Rockwool for 600mm each side of the wall. Note: Insulation should not be sustained through the wall opening.	-/60/60	Annular gap width: 5mm to 20mm Min. seal thickness: 75mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
Copper or Ferrous (steel and iron) pipes Ø100-125mm × 1.42mm (min.) Ø125-150mm × 1.63mm (min.)	Wall	1h Flexible Wall; lined with min. 2 x 13mm or min. 1 x 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 75mm (Including Aperture Beading))	Hilti CP 606 Acyrelic Sealant + PE foam backing rod + Protective insulation: 38mm or 50mm Bradford Fibertex 450 Rockwool for 600mm each side of the wall. Note: Insulation should not be sustained through the wall opening.	-/60/60	Annular gap width: 5mm to 20mm Min. seal thickness: 75mm Min. depth of sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28418-02
INSULATED NON-COMBUSTIBLE PIPES						
Ø22mm × 1mm Copper Pipe, insulated with 20mm thick Stonewool	Wall	1hr Plaster Board Wall; lined with min. 1 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm (+ Aperture Beading))	"Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A Insulation: 20mm thick Rockwool RS800 continuous through the seal with 200mm extension on each side "	-/60/60	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side. For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)"	EWFA RIR 38022100

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
Ø22mm × 1mm Copper Pipe, insulated with 20mm thick Stonewool	Wall	2hr Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A Insulation: 20mm thick Rockwool RS800 continuous through the seal with 200mm extension on each side	-/120/90	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side. For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100
Ø22mm × 1mm Copper Pipe, insulated with 20mm thick Stonewool	Wall	2hr Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A Insulation: 20mm thick Rockwool RS800 continuous through the seal with 200mm extension on each side	-/120/90	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side. For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100
Ø22mm × 1mm Copper Pipe, insulated with 20mm thick Stonewool	Wall	2hr Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 75mm (+ Aperture Beading))	"Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A Insulation: 20mm thick Rockwool RS800 continuous through the seal with 200mm extension on each side "	-/120/90	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side. For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100
Ø22mm × 1mm Copper Pipe, insulated with 20mm thick Stonewool	Floor	2hr Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A Insulation: 20mm thick Rockwool RS800 continuous through the seal with 200mm extension on each side	-/120/120	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Ø22mm × 1mm Copper Pipe, insulated with 20mm thick Stonewool	Floor	2hr Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on underside only + Hilti Firestop Intumescent Sealant CP 611A on underside only Insulation: 20mm thick Rockwool RS800 continuous through the seal with 200mm extension on each side	-/120/120	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
10mm ≤ Ø ≤ 22mm Copper Pipe insulated with Butyl Based Elastomeric Foam Insulation (7.5mm ≤ Ø ≤ 32mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 22mm Copper Pipe insulated with Butyl Based Elastomeric Foam Insulation (7.5mm ≤ Ø ≤ 32mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Copper Pipe insulated with Butyl Based Elastomeric Foam Insulation (8mm ≤ Ø ≤ 36.5mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/60/60	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Copper Pipe insulated with Butyl Based Elastomeric Foam Insulation (8mm ≤ Ø ≤ 36.5mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/60/60	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Copper Pipe insulated with Butyl Based Elastomeric Foam Insulation (8mm ≤ Ø ≤ 36.5mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 19mm Additional proection length: 250mm (LI) local interrupted Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Copper Pipe insulated with Butyl Based Elastomeric Foam Insulation (8mm ≤ Ø ≤ 36.5mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Min. final penetration seal thickness: 150mm Additional protection thickness: 19mm Additional proection length: 250mm (LI) local interrupted Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX for full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
18mm ≤ Ø ≤ 42mm Copper Pipe insulated with Butyl Based Elastomeric Foam Insulation (8mm ≤ Ø ≤ 36.5mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: Beading of 2 x 13mm or 16mm Fire Rated Plasterboard	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Min. final penetration seal thickness: 150mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Copper Pipe insulated with Butyl Based Elastomeric Foam Insulation (8mm ≤ Ø ≤ 36.5mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: Beading of 2 x 13mm or 16mm Fire Rated Plasterboard	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Min. final penetration seal thickness: 150mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
22mm ≤ Ø ≤ 42mm insulated with Butyl Based Elastomeric Foam Insulation (14.5mm ≤ Ø ≤ 36.5mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm	RIR EWFA 30726700
22mm ≤ Ø ≤ 42mm insulated with Butyl Based Elastomeric Foam Insulation (14.5mm ≤ Ø ≤ 36.5mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm	RIR EWFA 30726700
10mm ≤ Ø ≤ 35mm Copper Pipe insulated with Butyl Based Elastomeric Foam Insulation (7.5mm ≤ Ø ≤ 35mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: Beading of 2 x 13mm or 16mm Fire Rated Plasterboard	-/120/120	"Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Min. final penetration seal thickness: 150mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 35mm Copper Pipe insulated with Butyl Based Elastomeric Foam Insulation (7.5mm ≤ Ø ≤ 35mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: Beading of 2 x 13mm or 16mm Fire Rated Plasterboard	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Min. final penetration seal thickness: 150mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 22mm Copper Pipe insulated with Butyl Based Elastomeric Foam Insulation (7.5mm ≤ Ø ≤ 32mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
10mm ≤ Ø ≤ 22mm Copper Pipe insulated with Butyl Based Elastomeric Foam Insulation (7.5mm ≤ Ø ≤ 32mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Copper Pipe insulated with Butyl Based Elastomeric Foam Insulation (8mm ≤ Ø ≤ 36.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/60/60	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Copper Pipe insulated with Butyl Based Elastomeric Foam Insulation (8mm ≤ Ø ≤ 36.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/60/60	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Copper Pipe insulated with Butyl Based Elastomeric Foam Insulation (8mm ≤ Ø ≤ 36.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 19mm Additional proection length: 250mm (LI) local interrupted Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Copper Pipe insulated with Butyl Based Elastomeric Foam Insulation (8mm ≤ Ø ≤ 36.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 19mm Additional proection length: 250mm (LI) local interrupted Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX for full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Copper Pipe insulated with Butyl Based Elastomeric Foam Insulation (8mm ≤ Ø ≤ 36.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: Beading of 2 x 13mm or 16mm Fire Rated Plasterboard	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Min. final penetration seal thickness: 150mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
18mm ≤ Ø ≤ 42mm Copper Pipe insulated with Butyl Based Elastomeric Foam Insulation (8mm ≤ Ø ≤ 36.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: Beading of 2 x 13mm or 16mm Fire Rated Plasterboard	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Min. final penetration seal thickness: 150mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
22mm ≤ Ø ≤ 42mm insulated with Butyl Based Elastomeric Foam Insulation (14.5mm ≤ Ø ≤ 36.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
22mm ≤ Ø ≤ 42mm insulated with Butyl Based Elastomeric Foam Insulation (14.5mm ≤ Ø ≤ 36.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 35mm Copper Pipe insulated with Butyl Based Elastomeric Foam Insulation (7.5mm ≤ Ø ≤ 35mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: Beading of 2 x 13mm or 16mm Fire Rated Plasterboard	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Min. final penetration seal thickness: 150mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 35mm Copper Pipe insulated with Butyl Based Elastomeric Foam Insulation (7.5mm ≤ Ø ≤ 35mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: Beading of 2 x 13mm or 16mm Fire Rated Plasterboard	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Min. final penetration seal thickness: 150mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 22mm Steel Pipe with Elastomeric Combustible Insulation (7.5mm ≤ Ø ≤ 32mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 22mm Steel Pipe with Elastomeric Combustible Insulation (7.5mm ≤ Ø ≤ 32mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
18mm ≤ Ø ≤ 42mm Steel Pipe with Elastomeric Combustible Insulation (8mm ≤ Ø ≤ 36.5mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/60/60	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Steel Pipe with Elastomeric Combustible Insulation (8mm ≤ Ø ≤ 36.5mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/60/60	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Copper Pipe with Elastomeric Combustible Insulation (8mm ≤ Ø ≤ 36.5mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 19mm Additional proection length: 250mm (LI) local interrupted Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Copper Pipe with Elastomeric Combustible Insulation (8mm ≤ Ø ≤ 36.5mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 19mm Additional proection length: 250mm (LI) local interrupted Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX for full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
22mm ≤ Ø ≤ 42mm Steel Pipe with Elastomeric Combustible Insulation (14.5mm ≤ Ø ≤ 36.5mm)	Wall	Plaster Board Wall; ; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
22mm ≤ Ø ≤ 42mm Steel Pipe with Elastomeric Combustible Insulation (14.5mm ≤ Ø ≤ 36.5mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
42.4mm ≤ Ø ≤ 76mm Steel Pipe with Elastomeric Combustible Insulation (16.5mm ≤ Ø ≤ 40.5mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1.4mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
42.4mm ≤ Ø ≤ 76mm Steel Pipe with Elastomeric Combustible Insulation (16.5mm ≤ Ø ≤ 40.5mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1.4mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10.2mm ≤ Ø ≤ 76mm Steel Pipe with Elastomeric Combustible Insulation (7.5mm ≤ Ø ≤ 40.5mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 19mm Additional proection length: 250mm (LI) local interrupted Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10.2mm ≤ Ø ≤ 76mm Steel Pipe with Elastomeric Combustible Insulation (7.5mm ≤ Ø ≤ 40.5mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 19mm Additional proection length: 250mm (LI) local interrupted Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX for full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
76mm ≤ Ø ≤ 159mm Steel Pipe with Elastomeric Combustible Insulation (40.5mm ≤ Ø ≤ 45mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1.8mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
76mm ≤ Ø ≤ 159mm Steel Pipe with Elastomeric Combustible Insulation (40.5mm ≤ Ø ≤ 45mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1.8mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10.2mm ≤ Ø ≤ 60mm Steel Pipe with Elastomeric Combustible Insulation (7.5mm ≤ Ø ≤ 39mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: Beading of 2 x 13mm or 16mm Fire Rated Plasterboard	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Min. final penetration seal thickness: 150mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
10.2mm ≤ Ø ≤ 60mm Steel Pipe with Elastomeric Combustible Insulation (7.5mm ≤ Ø ≤ 39mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: Beading of 2 x 13mm or 16mm Fire Rated Plasterboard	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Min. final penetration seal thickness: 150mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 22mm Steel Pipe with Elastomeric Combustible Insulation (7.5mm ≤ Ø ≤ 33.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 22mm Steel Pipe with Elastomeric Combustible Insulation (7.5mm ≤ Ø ≤ 33.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Steel Pipe with Elastomeric Combustible Insulation (8mm ≤ Ø ≤ 36.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/60/60	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Steel Pipe with Elastomeric Combustible Insulation (8mm ≤ Ø ≤ 36.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/60/60	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Steel Pipe with Elastomeric Combustible Insulation (8mm ≤ Ø ≤ 36.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 19mm Additional proection length: 250mm (LI) local interrupted Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
18mm ≤ Ø ≤ 42mm Steel Pipe with Elastomeric Combustible Insulation (8mm ≤ Ø ≤ 36.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 19mm Additional proection length: 250mm (LI) local interrupted Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX for full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
22mm ≤ Ø ≤ 42mm Steel Pipe with Elastomeric Combustible Insulation (14.5mm ≤ Ø ≤ 36.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
22mm ≤ Ø ≤ 42mm Steel Pipe with Elastomeric Combustible Insulation (14.5mm ≤ Ø ≤ 36.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
42.4mm ≤ Ø ≤ 76mm Steel Pipe with Elastomeric Combustible Insulation (16.5mm ≤ Ø ≤ 40.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
42.4mm ≤ Ø ≤ 76mm Steel Pipe with Elastomeric Combustible Insulation (16.5mm ≤ Ø ≤ 40.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10.2mm ≤ Ø ≤ 76mm Steel Pipe with Elastomeric Combustible Insulation (7.5mm ≤ Ø ≤ 40.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 19mm Additional proection length: 250mm (LI) local interrupted Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
10.2mm ≤ ∅ ≤ 76mm Steel Pipe with Elastomeric Combustible Insulation (7.5mm ≤ ∅ ≤ 40.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ ∅ ≤ 14.2mm Additional protection thickness: 19mm Additional proection length: 250mm (LI) local interrupted Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX for full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
76mm ≤ ∅ ≤ 159mm Steel Pipe with Elastomeric Combustible Insulation (40.5mm ≤ ∅ ≤ 45mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1mm ≤ ∅ ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
76mm ≤ ∅ ≤ 159mm Steel Pipe with Elastomeric Combustible Insulation (40.5mm ≤ ∅ ≤ 45mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1mm ≤ ∅ ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10.2mm ≤ ∅ ≤ 60mm Steel Pipe with Elastomeric Combustible Insulation (7.5mm ≤ ∅ ≤ 39mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: Beading of 2 x 13mm or 16mm Fire Rated Plasterboard	-/120/120	Pipe wall thickness: 1mm ≤ ∅ ≤ 14.2mm Min. final penetration seal thickness: 150mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10.2mm ≤ ∅ ≤ 60mm Steel Pipe with Elastomeric Combustible Insulation (7.5mm ≤ ∅ ≤ 39mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: Beading of 2 x 13mm or 16mm Fire Rated Plasterboard	-/120/120	Pipe wall thickness: 1mm ≤ ∅ ≤ 14.2mm Min. final penetration seal thickness: 150mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ ∅ ≤ 42mm Copper Pipe with Elastomeric Combustible Insulation (7.5mm ≤ ∅ ≤ 36.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 200mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1mm ≤ ∅ ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support dis (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ ∅ ≤ 42mm Copper Pipe with Elastomeric Combustible Insulation (7.5mm ≤ ∅ ≤ 36.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 200mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1mm ≤ ∅ ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
10mm ≤ Ø ≤ 35mm Copper Pipe with Elastomeric Combustible Insulation (7.5mm ≤ Ø ≤ 35mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 200mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 35mm Copper Pipe with Elastomeric Combustible Insulation (7.5mm ≤ Ø ≤ 35mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 200mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 60mm Steel Pipe with Elastomeric Combustible Insulation (7.5mm ≤ Ø ≤ 33.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 200mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 60mm Steel Pipe with Elastomeric Combustible Insulation (7.5mm ≤ Ø ≤ 33.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 200mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
76mm ≤ Ø ≤ 159mm Steel Pipe with Elastomeric Combustible Insulation (8mm ≤ Ø ≤ 36.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 200mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1.8mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
76mm ≤ Ø ≤ 159mm Steel Pipe with Elastomeric Combustible Insulation (8mm ≤ Ø ≤ 36.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 200mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1.8mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
Ø 159mm Steel Pipe with Elastomeric Combustible Insulation (14.5mm ≤ Ø ≤ 36.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 200mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/120/120	Pipe wall thickness: 2mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
Ø 159mm Steel Pipe with Elastomeric Combustible Insulation (14.5mm ≤ Ø ≤ 36.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 200mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/120/120	Pipe wall thickness: 2mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
159mm ≤ Ø ≤ 813mm Steel Pipe with Elastomeric Combustible Insulation (16.5mm ≤ Ø ≤ 40.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 200mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: Mineral Wool / Rockwool Klimarock	-/120/120	Pipe wall thickness: 2mm ≤ Ø ≤ 14.2mm Additional protection thickness: 40mm Additional proection length: 500mm (LI) local interrupted Additional protection density: 40kg/m3 Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
159mm ≤ Ø ≤ 813mm Steel Pipe with Elastomeric Combustible Insulation (16.5mm ≤ Ø ≤ 40.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 200mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX Additional Protection: Mineral Wool / Rockwool Klimarock	-/120/120	Pipe wall thickness: 2mm ≤ Ø ≤ 14.2mm Additional protection thickness: 40mm Additional proection length: 500mm (LI) local interrupted Additional protection density: 40kg/m3 Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 35mm Copper Pipe with Elastomeric Combustible Insulation (7.5mm ≤ Ø ≤ 35mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 35mm Copper Pipe with Elastomeric Combustible Insulation (7.5mm ≤ Ø ≤ 35mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
35mm ≤ Ø ≤ 42mm Copper Pipe with Elastomeric Combustible Insulation (9mm ≤ Ø ≤ 36.5mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/60/60	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
35mm ≤ Ø ≤ 42mm Copper Pipe with Elastomeric Combustible Insulation (9mm ≤ Ø ≤ 36.5mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/60/60	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
35mm ≤ Ø ≤ 42mm Copper Pipe with Elastomeric Combustible Insulation (9mm ≤ Ø ≤ 36.5mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: Mineral Wool / Rockwool Klimarock	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 40mm Additional proection length: 250mm (LI) local interrupted Additional protection density: 40kg/m3 Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
35mm ≤ Ø ≤ 42mm Copper Pipe with Elastomeric Combustible Insulation (9mm ≤ Ø ≤ 36.5mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX Additional Protection: Mineral Wool / Rockwool Klimarock	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 40mm Additional proection length: 250mm (LI) local interrupted Additional protection density: 40kg/m3 Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10.2mm ≤ Ø ≤ 60mm Steel Pipe with Elastomeric Combustible Insulation (7.5mm ≤ Ø ≤ 39mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10.2mm ≤ Ø ≤ 60mm Steel Pipe with Elastomeric Combustible Insulation (7.5mm ≤ Ø ≤ 39mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
60mm ≤ Ø ≤ 76mm Steel Pipe with Elastomeric Combustible Insulation (9mm ≤ Ø ≤ 40.5mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
60mm ≤ Ø ≤ 76mm Steel Pipe with Elastomeric Combustible Insulation (9mm ≤ Ø ≤ 40.5mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
60mm ≤ ∅ ≤ 76mm Steel Pipe with Elastomeric Combustible Insulation (9mm ≤ ∅ ≤ 40.5mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: Mineral Wool / Rockwool Klimarock	-/120/120	Pipe wall thickness: 1mm ≤ ∅ ≤ 14.2mm Additional protection thickness: 40mm Additional proection length: 250mm (LI) local interrupted Additional protection density: 40kg/m3 Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
60mm ≤ ∅ ≤ 76mm Steel Pipe with Elastomeric Combustible Insulation (9mm ≤ ∅ ≤ 40.5mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX Additional Protection: Mineral Wool / Rockwool Klimarock	-/120/120	Pipe wall thickness: 1mm ≤ ∅ ≤ 14.2mm Additional protection thickness: 40mm Additional proection length: 250mm (LI) local interrupted Additional protection density: 40kg/m3 Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
76mm ≤ ∅ ≤ 108mm Steel Pipe with Elastomeric Combustible Insulation (14mm ≤ ∅ ≤ 42.5mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1.8mm ≤ ∅ ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
76mm ≤ ∅ ≤ 108mm Steel Pipe with Elastomeric Combustible Insulation (14mm ≤ ∅ ≤ 42.5mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1.8mm ≤ ∅ ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10.2mm ≤ ∅ ≤ 114.3mm Steel Pipe with Elastomeric Combustible Insulation (15.5mm ≤ ∅ ≤ 42.5mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/120/120	Pipe wall thickness: 1mm ≤ ∅ ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10.2mm ≤ ∅ ≤ 114.3mm Steel Pipe with Elastomeric Combustible Insulation (15.5mm ≤ ∅ ≤ 42.5mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/120/120	Pipe wall thickness: 1mm ≤ ∅ ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
76mm ≤ Ø ≤ 159mm Steel Pipe with Elastomeric Combustible Insulation (9mm ≤ Ø ≤ 45mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Hilti Acrylic Sealant CFS-S ACR + Additional Protection: Mineral Wool / Rockwool Klimarock	-/120/120	Pipe wall thickness: 1.8mm ≤ Ø ≤ 14.2mm Additional protection thickness: 40mm Additional proection length: 250mm (LI) local interrupted Additional protection density: 40kg/m3 Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
76mm ≤ Ø ≤ 159mm Steel Pipe with Elastomeric Combustible Insulation (9mm ≤ Ø ≤ 45mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX Additional Protection: Mineral Wool / Rockwool Klimarock	-/120/120	Pipe wall thickness: 1.8mm ≤ Ø ≤ 14.2mm Additional protection thickness: 40mm Additional proection length: 250mm (LI) local interrupted Additional protection density: 40kg/m3 Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
159mm ≤ Ø ≤ 323.9mm Steel Pipe with Elastomeric Combustible Insulation (9mm ≤ Ø ≤ 25mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Hilti Acrylic Sealant CFS-S ACR + Additional Protection: Mineral Wool / Rockwool Klimarock	-/120/120	Pipe wall thickness: 1.8mm ≤ Ø ≤ 14.2mm Additional protection thickness: 40mm Additional proection length: 500mm (LI) local interrupted Additional protection density: 40kg/m3 Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Full Depth Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
76mm ≤ Ø ≤ 159mm Steel Pipe with Elastomeric Combustible Insulation (9.5mm ≤ Ø ≤ 45mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/60/60	Pipe wall thickness: 2mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
76mm ≤ Ø ≤ 159mm Steel Pipe with Elastomeric Combustible Insulation (9.5mm ≤ Ø ≤ 45mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/60/60	Pipe wall thickness: 2mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
76mm ≤ Ø ≤ 159mm Steel Pipe with Elastomeric Combustible Insulation (9.5mm ≤ Ø ≤ 45mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: Mineral Wool / Rockwool Klimarock	-/120/120	Pipe wall thickness: 2mm ≤ Ø ≤ 14.2mm Additional protection thickness: 40mm Additional proection length: 250mm (LI) local interrupted Additional protection density: 40kg/m3 Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
76mm ≤ Ø ≤ 159mm Steel Pipe with Elastomeric Combustible Insulation (9.5mm ≤ Ø ≤ 45mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: Mineral Wool / Rockwool Klimarock	-/120/120	Pipe wall thickness: 2mm ≤ Ø ≤ 14.2mm Additional protection thickness: 40mm Additional proection length: 250mm (LI) local interrupted Additional protection density: 40kg/m3 Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 22mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Plasetr Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 22mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Plasetr Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Plasetr Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/60/60	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Plasetr Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/60/60	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Plasetr Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 19mm Additional proection length: 250mm (LI) local interrupted Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
18mm ≤ Ø ≤ 42mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Plasetr Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 19mm Additional proection length: 250mm (LI) local interrupted Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Plasetr Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Min. additional protection width: 50mm Min. final penetration seal thickness: 150mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Plasetr Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Min. additional protection width: 50mm Min. final penetration seal thickness: 150mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
22mm ≤ Ø ≤ 42mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Plasetr Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
22mm ≤ Ø ≤ 42mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Plasetr Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 35mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Plasetr Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: Beading of 2 x 13mm or 16mm Fire Rated Plasterboard	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Min. additional protection width: 50mm Min. final penetration seal thickness: 150mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
10mm ≤ Ø ≤ 35mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Plasetr Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: Beading of 2 x 13mm or 16mm Fire Rated Plasterboard	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Min. additional protection width: 50mm Min. final penetration seal thickness: 150mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 22mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 22mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/60/60	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/60/60	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 19mm Additional proection length: 250mm (LI) local interrupted Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
18mm ≤ Ø ≤ 42mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 19mm Additional proection length: 250mm (LI) local interrupted Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Min. additional protection width: 50mm Min. final penetration seal thickness: 150mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Min. additional protection width: 50mm Min. final penetration seal thickness: 150mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
22mm ≤ Ø ≤ 42mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal 0mm to 15mm: Hilti Firestop Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
22mm ≤ Ø ≤ 42mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal 15mm to 50mm: Hilti Firestop Foam CFS-F FX for full depth of wall Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 35mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Min. additional protection width: 50mm Min. final penetration seal thickness: 150mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
10mm ≤ Ø ≤ 35mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Min. additional protection width: 50mm Min. final penetration seal thickness: 150mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 22mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal 0mm to 15mm: Hilti Firestop Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 22mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/60/60	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/60/60	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 19mm Additional proection length: 250mm (LI) local interrupted Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
18mm ≤ Ø ≤ 42mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 19mm Additional proection length: 250mm (LI) local interrupted Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
22mm ≤ Ø ≤ 42mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
22mm ≤ Ø ≤ 42mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
42.4mm ≤ Ø ≤ 76mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1.4mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
42.4mm ≤ Ø ≤ 76mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1.4mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10.2mm ≤ Ø ≤ 76mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 19mm Additional proection length: 250mm (LI) local interrupted Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
10.2mm ≤ Ø ≤ 76mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 19mm Additional proection length: 250mm (LI) local interrupted Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10.2mm ≤ Ø ≤ 60mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: Beading of 2 x 13mm or 16mm Fire Rated Plasterboard	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Min. additional protection width: 50mm Min. final penetration seal thickness: 150mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10.2mm ≤ Ø ≤ 60mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Plaster Board Wall; lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: Beading of 2 x 13mm or 16mm Fire Rated Plasterboard	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Min. additional protection width: 50mm Min. final penetration seal thickness: 150mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 22mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 22mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	"Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: Annular gap seal: 0mm to 15mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/60/60	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/60/60	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
18mm ≤ Ø ≤ 42mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 19mm Additional proection length: 250mm (LI) local interrupted Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
18mm ≤ Ø ≤ 42mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 19mm Additional proection length: 250mm (LI) local interrupted Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
22mm ≤ Ø ≤ 42mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
22mm ≤ Ø ≤ 42mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm	RIR EWFA 30726700
42.4mm ≤ Ø ≤ 76mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1.4mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
42.4mm ≤ Ø ≤ 76mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1.4mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10.2mm ≤ Ø ≤ 76mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 19mm Additional proection length: 250mm (LI) local interrupted Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
10.2mm ≤ Ø ≤ 76mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: 19mm Armaflex AF elastomeric material for thermal insulation	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 19mm Additional proection length: 250mm (LI) local interrupted Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10.2mm ≤ Ø ≤ 60mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: Beading of 2 x 13mm or 16mm Fire Rated Plasterboard	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Min. additional protection width: 50mm Min. final penetration seal thickness: 150mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10.2mm ≤ Ø ≤ 60mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: Beading of 2 x 13mm or 16mm Fire Rated Plasterboard	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Min. additional protection width: 50mm Min. final penetration seal thickness: 150mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 42mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 200mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 42mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 200mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 35mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 200mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 35mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 200mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
10mm ≤ Ø ≤ 60mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 200mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 60mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 200mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
76mm ≤ Ø ≤ 159mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 200mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1.8mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
76mm ≤ Ø ≤ 159mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 200mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1.8mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
76mm ≤ Ø ≤ 159mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 200mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: Mineral Wool / Rockwool Klimarock	-/90/90	Pipe wall thickness: 1.8mm ≤ Ø ≤ 14.2mm Additional protection thickness: 40mm Additional proection length: 250mm (LI) local interrupted Additional protection density: 40kg/m3 Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
76mm ≤ Ø ≤ 159mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 200mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: Mineral Wool / Rockwool Klimarock	-/90/90	Pipe wall thickness: 1.8mm ≤ Ø ≤ 14.2mm Additional protection thickness: 40mm Additional proection length: 250mm (LI) local interrupted Additional protection density: 40kg/m3 Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
Ø 159mm Steel Pipe with Elastomeric Combustible Insulation (14.5mm ≤ Ø ≤ 36.5mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 200mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/120/120	Pipe wall thickness: 4mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
Ø 159mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 200mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/120/120	Pipe wall thickness: 4mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
159mm ≤ Ø ≤ 813mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 200mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: Mineral Wool / Rockwool Klimarock	-/120/120	Pipe wall thickness: 2mm ≤ Ø ≤ 14.2mm Additional protection thickness: 40mm Additional proection length: 500mm (LI) local interrupted Additional protection density: 40kg/m3 Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
159mm ≤ Ø ≤ 813mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 200mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: Mineral Wool / Rockwool Klimarock	-/120/120	Pipe wall thickness: 2mm ≤ Ø ≤ 14.2mm Additional protection thickness: 40mm Additional proection length: 500mm (LI) local interrupted Additional protection density: 40kg/m3 Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 450mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 35mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 +	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10mm ≤ Ø ≤ 35mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX +	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
35mm ≤ Ø ≤ 42mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/60/60	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
35mm ≤ Ø ≤ 42mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/60/60	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
35mm ≤ Ø ≤ 42mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: Mineral Wool / Rockwool Klimarock	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 40mm Additional proection length: 250mm (LI) local interrupted Additional protection density: 40kg/m3 Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
35mm ≤ Ø ≤ 42mm Copper Pipe with Mineral Wool Insulation (Ø 40mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: Mineral Wool / Rockwool Klimarock	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 40mm Additional proection length: 250mm (LI) local interrupted Additional protection density: 40kg/m3 Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10.2mm ≤ Ø ≤ 60mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10.2mm ≤ Ø ≤ 60mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal 15mm to 50mm: Hilti Firestop Foam CFS-F FX for full depth of floor Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
60mm ≤ Ø ≤ 76mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
60mm ≤ Ø ≤ 76mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
60mm ≤ Ø ≤ 76mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: Mineral Wool / Rockwool Klimarock	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 40mm Additional proection length: 250mm (LI) local interrupted Additional protection density: 40kg/m3 Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
60mm ≤ Ø ≤ 76mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: Mineral Wool / Rockwool Klimarock	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Additional protection thickness: 40mm Additional proection length: 250mm (LI) local interrupted Additional protection density: 40kg/m3 Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
76mm ≤ Ø ≤ 108mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/90/90	Pipe wall thickness: 1.8mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
76mm ≤ Ø ≤ 108mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/90/90	Pipe wall thickness: 1.8mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10.2mm ≤ Ø ≤ 114.3mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
10.2mm ≤ Ø ≤ 114.3mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/120/120	Pipe wall thickness: 1mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
76mm ≤ Ø ≤ 323.9mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: Mineral Wool / Rockwool Klimarock	-/120/120	Pipe wall thickness: 1.8mm ≤ Ø ≤ 14.2mm Additional protection thickness: 40mm Additional proection length: 250mm (LI) local interrupted Additional protection density: 40kg/m3 Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
76mm ≤ Ø ≤ 323.9mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: Mineral Wool / Rockwool Klimarock	-/120/120	Pipe wall thickness: 1.8mm ≤ Ø ≤ 14.2mm Additional protection thickness: 40mm Additional proection length: 250mm (LI) local interrupted Additional protection density: 40kg/m3 Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
Ø 323.9mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: Mineral Wool / Rockwool Klimarock	-/120/120	Pipe wall thickness: 1.8mm ≤ Ø ≤ 14.2mm Additional protection thickness: 40mm Additional proection length: 500mm (LI) local interrupted Additional protection density: 40kg/m3 Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
Ø 323.9mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: Mineral Wool / Rockwool Klimarock	-/120/120	Pipe wall thickness: 1.8mm ≤ Ø ≤ 14.2mm Additional protection thickness: 40mm Additional proection length: 500mm (LI) local interrupted Additional protection density: 40kg/m3 Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
76mm ≤ Ø ≤ 159mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606	-/60/60	"Pipe wall thickness: 2mm ≤ Ø ≤ 14.2mm Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
76mm ≤ Ø ≤ 159mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX	-/60/60	Pipe wall thickness: 2mm ≤ Ø ≤ 14.2mm Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED NON-COMBUSTIBLE PIPES						
76mm ≤ Ø ≤ 159mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Firestop Acrylic Sealant CFS-S ACR / CP606 + Additional Protection: Mineral Wool / Rockwool Klimarock	-/120/120	Pipe wall thickness: 2mm ≤ Ø ≤ 14.2mm Additional protection thickness: 40mm Additional proection length: 250mm (LI) local interrupted Additional protection density: 40kg/m3 Annular gap seal: 0mm to 15mm Hilti Sealant Depth: Thickness of wall lining Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
76mm ≤ Ø ≤ 159mm Steel Pipe with Mineral Wool Insulation (Ø 40mm)	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Bandage CFS-B + Hilti Firestop Foam CFS-F FX + Additional Protection: Mineral Wool / Rockwool Klimarock	-/120/120	Pipe wall thickness: 2mm ≤ Ø ≤ 14.2mm Additional protection thickness: 40mm Additional proection length: 250mm (LI) local interrupted Additional protection density: 40kg/m3 Annular gap seal: 15mm to 50mm Hilti Firestop Foam CFS-F FX installed to full depth of wall, additional aperture lining may be required Pipe support distance: 330mm (See Report Ref. for full installation details)	RIR EWFA 30726700
Ø16mm x 1.2-2.4mm PE-X Pipe	Wall	Plaster Board Wall; lined with min. 1 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Additional Protection 1: Hilti Firestop Collar CP 644/ CSF-C P-50/1.5 on both sides	-/60/60	Min. aperture diameter: Ø26mm Max. aperture diameter: Ø36mm Min. seal depth: 25mm Min. gap between edge of penetration and outside collar edge: 5mm (See Report Ref. for full installation details)	EWFA RIR 33136700.4
Ø16mm x 1.2-2.4mm PE-X Pipe	Wall	Plaster Board Wall; lined with min. 1 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Additional Protection 2: 1 layer of 13mm or 16mm Fire Rated Plasterboard both sides of wall	-/60/60	Min. aperture diameter: Ø26mm Max. aperture diameter: Ø36mm Min. seal depth: 25mm (See Report Ref. for full installation details)	EWFA RIR 33136700.4
Ø20mm x 2.3-3.4mm PE-X Pipe	Wall	Plaster Board Wall; lined with min. 1 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Additional Protection 1: Hilti Firestop Collar CP 644/ CSF-C P-50/1.5 on both sides	-/60/60	Min. aperture diameter: Ø30mm Max. aperture diameter: Ø40mm Min. seal depth: 25mm Min. gap between edge of penetration and outside collar edge: 5mm (See Report Ref. for full installation details)	EWFA RIR 33136700.4
Ø20mm x 2.3-3.4mm PE-X Pipe	Wall	Plaster Board Wall; lined with min. 1 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Additional Protection 2: 1 layer of 13mm or 16mm Fire Rated Plasterboard both sides of wall"	-/60/60	Min. aperture diameter: Ø30mm Max. aperture diameter: Ø40mm Min. seal depth: 25mm (See Report Ref. for full installation details)	EWFA RIR 33136700.4
Ø25mm x 2.8-3.9mm PE-X Pipe	Wall	Plaster Board Wall; lined with min. 1 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Additional Protection 1: Hilti Firestop Collar CP 644/ CSF-C P-50/1.5 on both sides"	-/60/60	Min. aperture diameter: Ø35mm Max. aperture diameter: Ø45mm Min. seal depth: 25mm Min. gap between edge of penetration and outside collar edge: 5mm (See Report Ref. for full installation details)	EWFA RIR 33136700.4

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
NON-INSULATED COMBUSTIBLE PIPES						
Ø25mm x 2.8-3.9mm PE-X Pipe	Wall	Plaster Board Wall; lined with min. 1 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Additional Protection 2: 1 layer of 13mm or 16mm Fire Rated Plasterboard both sides of wall"	-/60/60	Min. aperture diameter: Ø35mm Max. aperture diameter: Ø45mm Min. seal depth: 25mm (See Report Ref. for full installation details)	EWFA RIR 33136700.4
Ø16mm x 1.2-2.4mm PE-X Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm/16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides	-/120/120	Min. aperture diameter: Ø26mm Max. aperture diameter: Ø36mm Min. seal depth: 25mm (See Report Ref. for full installation details)	EWFA RIR 33136700.4
Ø16mm x 1.2-2.4mm PE-X Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm/16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Backfilling material: Mineral wool (Tightly compressed)	-/120/120	Min. aperture diameter: Ø36mm Max. aperture diameter: Ø150mm Min. seal depth: 25mm (See Report Ref. for full installation details)	EWFA RIR 33136700.4
Ø20mm x 2.3-3.4mm PE-X Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm/16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides	-/120/120	Min. aperture diameter: Ø30mm Max. aperture diameter: Ø40mm Min. seal depth: 25mm	EWFA RIR 33136700.4
Ø20mm x 2.3-3.4mm PE-X Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm/16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Backfilling material: Mineral wool (Tightly compressed)	-/120/120	Min. aperture diameter: Ø40mm Max. aperture diameter: Ø150mm Min. seal depth: 25mm (See Report Ref. for full installation details)	EWFA RIR 33136700.4
Ø25mm x 2.8-3.9mm PE-X Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm/16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides	-/120/120	Min. aperture diameter: Ø35mm Max. aperture diameter: Ø45mm Min. seal depth: 25mm (See Report Ref. for full installation details)	EWFA RIR 33136700.4
Ø25mm x 2.8-3.9mm PE-X Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm/16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Backfilling material: Mineral wool (Tightly compressed)	-/120/120	Min. aperture diameter: Ø45mm Max. aperture diameter: Ø150mm Min. seal depth: 25mm (See Report Ref. for full installation details)	EWFA RIR 33136700.4
Ø16mm x 1.2-2.4mm PE-X Pipe	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Solid or Hollow Masonry (Min. Wall Thickness 75mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Additional Protection 1: Hilti Firestop Collar CP 644/ CSF-C P-50/1.5 on both sides + Additional Protection 2: 1 layer of 13mm or 16mm Fire Rated Plasterboard	-/120/120	Min. aperture diameter: Ø26mm Max. aperture diameter: Ø36mm Min. seal depth: 25mm Min. gap between edge of penetration and outside collar edge: 5mm (See Report Ref. for full installation details)	EWFA RIR 33136700.4
Ø16mm x 1.2-2.4mm PE-X Pipe	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Solid or Hollow Masonry (Min. Wall Thickness 75mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + 2 x Additional Protection 2: 1 layer of 13mm or 16mm Fire Rated Plasterboard	-/120/120	Min. aperture diameter: Ø26mm Max. aperture diameter: Ø36mm Min. seal depth: 25mm (See Report Ref. for full installation details)	EWFA RIR 33136700.4

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
NON-INSULATED COMBUSTIBLE PIPES						
Ø20mm x 2.3-3.4mm PE-X Pipe	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Solid or Hollow Masonry (Min. Wall Thickness 75mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Additional Protection 1: Hilti Firestop Collar CP 644/ CSF-C P-50/1.5 on both sides + Additional Protection 2: 1 layer of 13mm or 16mm Fire Rated Plasterboard	-/120/120	Min. aperture diameter: Ø30mm Max. aperture diameter: Ø40mm Min. seal depth: 25mm Min. gap between edge of penetration and outside collar edge: 5mm (See Report Ref. for full installation details)	EWFA RIR 33136700.4
Ø20mm x 2.3-3.4mm PE-X Pipe	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Solid or Hollow Masonry (Min. Wall Thickness 75mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + 2 x Additional Protection 2: 1 layer of 13mm or 16mm Fire Rated Plasterboard	-/120/120	Min. aperture diameter: Ø30mm Max. aperture diameter: Ø40mm Min. seal depth: 25mm (See Report Ref. for full installation details)	EWFA RIR 33136700.4
Ø25mm x 2.8-3.9mm PE-X Pipe	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Solid or Hollow Masonry (Min. Wall Thickness 75mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Additional Protection 1: Hilti Firestop Collar CP 644/ CSF-C P-50/1.5 on both sides + Additional Protection 2: 1 layer of 13mm or 16mm Fire Rated Plasterboard	-/120/120	Min. aperture diameter: Ø35mm Max. aperture diameter: Ø45mm Min. seal depth: 25mm Min. gap between edge of penetration and outside collar edge: 5mm (See Report Ref. for full installation details)	EWFA RIR 33136700.4
Ø25mm x 2.8-3.9mm PE-X Pipe	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Solid or Hollow Masonry (Min. Wall Thickness 75mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + 2 x Additional Protection 2: 1 layer of 13mm or 16mm Fire Rated Plasterboard	-/120/120	Min. aperture diameter: Ø35mm Max. aperture diameter: Ø45mm Min. seal depth: 25mm (See Report Ref. for full installation details)	EWFA RIR 33136700.4
Ø16mm x 1.2-2.4mm PE-X Pipe	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides	-/120/120	Min. aperture diameter: Ø26mm Max. aperture diameter: Ø36mm Min. seal depth: 25mm (See Report Ref. for full installation details)	EWFA RIR 33136700.4
Ø16mm x 1.2-2.4mm PE-X Pipe	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Backfilling material: Mineral wool (Tightly compressed)	-/120/120	Min. aperture diameter: Ø36mm Max. aperture diameter: Ø150mm Min. seal depth: 25mm (See Report Ref. for full installation details)	EWFA RIR 33136700.4
Ø20mm x 2.3-3.4mm PE-X Pipe	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides	-/120/120	Min. aperture diameter: Ø30mm Max. aperture diameter: Ø40mm Min. seal depth: 25mm (See Report Ref. for full installation details)	EWFA RIR 33136700.4
Ø20mm x 2.3-3.4mm PE-X Pipe	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Backfilling material: Mineral wool (Tightly compressed)	-/120/120	Min. aperture diameter: Ø40mm Max. aperture diameter: Ø150mm Min. seal depth: 25mm (See Report Ref. for full installation details)	EWFA RIR 33136700.4
Ø25mm x 2.8-3.9mm PE-X Pipe	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides	-/120/120	Min. aperture diameter: Ø35mm Max. aperture diameter: Ø45mm Min. seal depth: 25mm (See Report Ref. for full installation details)	EWFA RIR 33136700.4

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
NON-INSULATED COMBUSTIBLE PIPES						
Ø25mm x 2.8-3.9mm PE-X Pipe	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Backfilling material: Mineral wool (Tightly compressed)	-/120/120	Min. aperture diameter: Ø45mm Max. aperture diameter: Ø150mm Min. seal depth: 25mm (See Report Ref. for full installation details)	EWFA RIR 33136700.4
Ø43 uPVC Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/90	Collar Size: 50/1.5" Pipe Wall Thickness: 2mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø56 uPVC Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/120	Collar Size: 63/2" Pipe Wall Thickness: 2.2mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø69 uPVC Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/90	Collar Size: 75/2.5" Pipe Wall Thickness: 2.7mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø85 uPVC Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/90	Collar Size: 90/3" Pipe Wall Thickness: 2.9mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø110 uPVC Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/120	Collar Size: 110/4" Pipe Wall Thickness: 3.2mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø160 uPVC Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/120	Collar Size: 160/6" Pipe Wall Thickness: 4.5mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)"	EWFA RIR 27006-03
Ø40 PPR Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/120	Collar Size: 50/1.5" Pipe Wall Thickness: 6mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
NON-INSULATED COMBUSTIBLE PIPES						
Ø50 PPR Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/120	Collar Size: 50/1.5" Pipe Wall Thickness: 6.9mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø65 PPR Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/90	Collar Size: 75/2.5" Pipe Wall Thickness: 8.6mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø80 PPR Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/90	Collar Size: 90/3" Pipe Wall Thickness: 10.3mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø100 PPR Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/120	Collar Size: 110/4" Pipe Wall Thickness: 12.3mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø110 PPR Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/120	Collar Size: 110/4" Pipe Wall Thickness: 15mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø125 PPR Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/120	Collar Size: 125/5" Pipe Wall Thickness: 19mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø40 PE-100 (HDPE) Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/120	Collar Size: 50/1.5" Pipe Wall Thickness: 5mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø50 PE-100 (HDPE) Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/120	Collar Size: 50/1.5" Pipe Wall Thickness: 4.6mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø65 PE-100 (HDPE) Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/90	Collar Size: 75/2.5" Pipe Wall Thickness: 5.8mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
NON-INSULATED COMBUSTIBLE PIPES						
Ø80 PE-100 (HDPE) Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/90	Collar Size: 90/3" Pipe Wall Thickness: 6.8mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø100 PE-100 (HDPE) Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/120	Collar Size: 110/4" Pipe Wall Thickness: 8.2mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø110 PE-100 (HDPE) Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/120	Collar Size: 110/4" Pipe Wall Thickness: 12mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø125 PE-100 (HDPE) Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/120	Collar Size: 125/5" Pipe Wall Thickness: 13mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø200 PE-100 (HDPE) Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/60	Collar Size: 200/8" Pipe Wall Thickness: 20mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø50 Raupiano Plus Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/120	Collar Size: 50/1.5" Pipe Wall Thickness: 1.8mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø75 Raupiano Plus Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/120	Collar Size: 75/2.5" Pipe Wall Thickness: 1.9mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø90 Raupiano Plus Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/120	Collar Size: 90/3" Pipe Wall Thickness: 2.2mm Depth of annular gap seal: full depth of wall lining	EWFA RIR 27006-03
Ø110 Raupiano Plus Pipe	Wall	Plaster Board Wall; lined with min. 2 x 13mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/120	Collar Size: 110/4" Pipe Wall Thickness: 2.7mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
NON-INSULATED COMBUSTIBLE PIPES						
Ø43 uPVC Pipe	Floor	Concrete Floor (Min. Floor Thickness 120mm)	Hilti Firestop Collar CFS-C P fixed to one side of the floor + Annular Gap Seal: Mortar or Hilti Firestop Acrylic Selant CFS-S ACR / CP606	-/240/240	Collar Size: 50/1.5" Pipe Wall Thickness: 2mm Mortar Depth: Full depth of floor Sealant Depth: 20mm on underside of floor + PEF backing rod (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø56 uPVC Pipe	Floor	Concrete Floor (Min. Floor Thickness 120mm)	Hilti Firestop Collar CFS-C P fixed to one side of the floor + Annular Gap Seal: Mortar or Hilti Firestop Acrylic Selant CFS-S ACR / CP606	-/240/240	Collar Size: 63/2" Pipe Wall Thickness: 2.2mm Mortar Depth: Full depth of floor Sealant Depth: 20mm on underside of floor + PEF backing rod (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø69 uPVC Pipe	Floor	Concrete Floor (Min. Floor Thickness 120mm)	Hilti Firestop Collar CFS-C P fixed to one side of the floor + Annular Gap Seal: Mortar or Hilti Firestop Acrylic Selant CFS-S ACR / CP606	-/240/240	Collar Size: 75/2.5" Pipe Wall Thickness: 2.7mm Mortar Depth: Full depth of floor Sealant Depth: 20mm on underside of floor + PEF backing rod (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø85 uPVC Pipe	Floor	Concrete Floor (Min. Floor Thickness 120mm)	Hilti Firestop Collar CFS-C P fixed to one side of the floor + Annular Gap Seal: Mortar or Hilti Firestop Acrylic Selant CFS-S ACR / CP606	-/240/240	Collar Size: 90/3" Pipe Wall Thickness: 2.9mm Mortar Depth: Full depth of floor Sealant Depth: 20mm on underside of floor + PEF backing rod (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø110 uPVC Pipe	Floor	Concrete Floor (Min. Floor Thickness 120mm)	Hilti Firestop Collar CFS-C P fixed to one side of the floor + Annular Gap Seal: Mortar or Hilti Firestop Acrylic Selant CFS-S ACR / CP606	-/240/240	Collar Size: 110/4" Pipe Wall Thickness: 3.2mm Mortar Depth: Full depth of floor Sealant Depth: 20mm on underside of floor + PEF backing rod (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø160 uPVC Pipe	Floor	Concrete Floor (Min. Floor Thickness 120mm)	"Hilti Firestop Collar CFS-C P fixed to one side of the floor + Annular Gap Seal: Mortar or Hilti Firestop Acrylic Selant CFS-S ACR / CP606"	-/240/240	Collar Size: 160/6" Pipe Wall Thickness: 4.5mm Mortar Depth: Full depth of floor Sealant Depth: 20mm on underside of floor + PEF backing rod (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø40 PPR Pipe	Floor	Concrete Floor (Min. Floor Thickness 120mm)	Hilti Firestop Collar CFS-C P fixed to one side of the floor + Annular Gap Seal: Mortar or Hilti Firestop Acrylic Selant CFS-S ACR / CP606	-/180/120	Collar Size: 50/1.5" Pipe Wall Thickness: 6mm Mortar Depth: Full depth of floor Sealant Depth: 20mm on underside of floor + PEF backing rod (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø50 PPR Pipe	Floor	Concrete Floor (Min. Floor Thickness 120mm)	Hilti Firestop Collar CFS-C P fixed to one side of the floor + Annular Gap Seal: Mortar or Hilti Firestop Acrylic Selant CFS-S ACR / CP606	-/120/120	Collar Size: 50/1.5" Pipe Wall Thickness: 6.9mm Mortar Depth: Full depth of floor Sealant Depth: 20mm on underside of floor + PEF backing rod (See Report Ref. for full installation details)	EWFA RIR 27006-03

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
NON-INSULATED COMBUSTIBLE PIPES						
Ø65 PPR Pipe	Floor	Concrete Floor (Min. Floor Thickness 120mm)	Hilti Firestop Collar CFS-C P fixed to one side of the floor + Annular Gap Seal: Mortar or Hilti Firestop Acrylic Selant CFS-S ACR / CP606	-/120/120	Collar Size: 75/2.5" Pipe Wall Thickness: 8.6mm Mortar Depth: Full depth of floor Sealant Depth: 20mm on underside of floor + PEF backing rod (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø80 PPR Pipe	Floor	Concrete Floor (Min. Floor Thickness 120mm)	Hilti Firestop Collar CFS-C P fixed to one side of the floor + Annular Gap Seal: Mortar or Hilti Firestop Acrylic Selant CFS-S ACR / CP606	-/120/120	Collar Size: 90/3" Pipe Wall Thickness: 10.3mm Depth of annular gap seal: full depth of concrete slab	EWFA RIR 27006-03
Ø100 PPR Pipe	Floor	Concrete Floor (Min. Floor Thickness 120mm)	Hilti Firestop Collar CFS-C P fixed to one side of the floor + Annular Gap Seal: Mortar or Hilti Firestop Acrylic Selant CFS-S ACR / CP606	-/120/120	Collar Size: 110/4" Pipe Wall Thickness: 12.3mm Mortar Depth: Full depth of floor Sealant Depth: 20mm on underside of floor + PEF backing rod (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø110 PPR Pipe	Floor	Concrete Floor (Min. Floor Thickness 120mm)	Hilti Firestop Collar CFS-C P fixed to one side of the floor + Annular Gap Seal: Mortar or Hilti Firestop Acrylic Selant CFS-S ACR / CP606	-/120/120	Collar Size: 110/4" Pipe Wall Thickness: 15mm Mortar Depth: Full depth of floor Sealant Depth: 20mm on underside of floor + PEF backing rod (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø125 PPR Pipe	Floor	Concrete Floor (Min. Floor Thickness 120mm)	Hilti Firestop Collar CFS-C P fixed to one side of the floor + Annular Gap Seal: Mortar or Hilti Firestop Acrylic Selant CFS-S ACR / CP606	-/240/120	Collar Size: 125/5" Pipe Wall Thickness: 19mm Depth of annular gap seal: full depth of concrete slab (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø40 PE-100 (HDPE) Pipe	Floor	Concrete Floor (Min. Floor Thickness 120mm)	Hilti Firestop Collar CFS-C P fixed to one side of the floor + Annular Gap Seal: Mortar or Hilti Firestop Acrylic Selant CFS-S ACR / CP606	-/180/120	Collar Size: 50/1.5" Pipe Wall Thickness: 5mm Mortar Depth: Full depth of floor Sealant Depth: 20mm on underside of floor + PEF backing rod (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø50 PE-100 (HDPE) Pipe	Floor	Concrete Floor (Min. Floor Thickness 120mm)	Hilti Firestop Collar CFS-C P fixed to one side of the floor + Annular Gap Seal: Mortar or Hilti Firestop Acrylic Selant CFS-S ACR / CP606	-/90/90	Collar Size: 50/1.5" Pipe Wall Thickness: 4.6mm Mortar Depth: Full depth of floor Sealant Depth: 20mm on underside of floor + PEF backing rod (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø65 PE-100 (HDPE) Pipe	Floor	Concrete Floor (Min. Floor Thickness 120mm)	Hilti Firestop Collar CFS-C P fixed to one side of the floor + Annular Gap Seal: Mortar or Hilti Firestop Acrylic Selant CFS-S ACR / CP606	-/90/90	Collar Size: 75/2.5" Pipe Wall Thickness: 5.8mm Depth of annular gap seal: full depth of concrete slab (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø80 PE-100 (HDPE) Pipe	Floor	Concrete Floor (Min. Floor Thickness 120mm)	Hilti Firestop Collar CFS-C P fixed to one side of the floor + Annular Gap Seal: Mortar or Hilti Firestop Acrylic Selant CFS-S ACR / CP606	-/90/90	Collar Size: 90/3" Pipe Wall Thickness: 6.8mm Mortar Depth: Full depth of floor Sealant Depth: 20mm on underside of floor + PEF backing rod (See Report Ref. for full installation details)	EWFA RIR 27006-03

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
NON-INSULATED COMBUSTIBLE PIPES						
Ø100 PE-100 (HDPE) Pipe	Floor	Concrete Floor (Min. Floor Thickness 120mm)	Hilti Firestop Collar CFS-C P fixed to one side of the floor + Annular Gap Seal: Mortar or Hilti Firestop Acrylic Selant CFS-S ACR / CP606	-/90/90	Collar Size: 110/4" Pipe Wall Thickness: 8.2mm Mortar Depth: Full depth of floor Sealant Depth: 20mm on underside of floor + PEF backing rod (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø110 PE-100 (HDPE) Pipe	Floor	Concrete Floor (Min. Floor Thickness 120mm)	Hilti Firestop Collar CFS-C P fixed to one side of the floor + Annular Gap Seal: Mortar or Hilti Firestop Acrylic Selant CFS-S ACR / CP606	-/90/90	Collar Size: 110/4" Pipe Wall Thickness: 12mm Mortar Depth: Full depth of floor Sealant Depth: 20mm on underside of floor + PEF backing rod (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø125 PE-100 (HDPE) Pipe	Floor	Concrete Floor (Min. Floor Thickness 120mm)	Hilti Firestop Collar CFS-C P fixed to one side of the floor + Annular Gap Seal: Mortar or Hilti Firestop Acrylic Selant CFS-S ACR / CP606	-/60/60	Collar Size: 125/5" Pipe Wall Thickness: 13mm Mortar Depth: Full depth of floor Sealant Depth: 20mm on underside of floor + PEF backing rod (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø200 PE-100 (HDPE) Pipe	Floor	Concrete Floor (Min. Floor Thickness 120mm)	Hilti Firestop Collar CFS-C P fixed to one side of the floor + Annular Gap Seal: Mortar or Hilti Firestop Acrylic Selant CFS-S ACR / CP606	-/30/30	Collar Size: 200/8" Pipe Wall Thickness: 20mm Mortar Depth: Full depth of floor Sealant Depth: 20mm on underside of floor + PEF backing rod (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø50 Raupiano Plus Pipe	Floor	Concrete Floor (Min. Floor Thickness 120mm)	Hilti Firestop Collar CFS-C P fixed to one side of the floor + Annular Gap Seal: Mortar or Hilti Firestop Acrylic Selant CFS-S ACR / CP606	-/120/120	Collar Size: 50/1.5" Pipe Wall Thickness: 1.8mm Mortar Depth: Full depth of floor Sealant Depth: 20mm on underside of floor + PEF backing rod (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø75 Raupiano Plus Pipe	Floor	Concrete Floor (Min. Floor Thickness 120mm)	Hilti Firestop Collar CFS-C P fixed to one side of the floor + Annular Gap Seal: Mortar or Hilti Firestop Acrylic Selant CFS-S ACR / CP606	-/120/120	Collar Size: 75/2.5" Pipe Wall Thickness: 1.9mm Mortar Depth: Full depth of floor Sealant Depth: 20mm on underside of floor + PEF backing rod (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø90 Raupiano Plus Pipe	Floor	Concrete Floor (Min. Floor Thickness 120mm)	Hilti Firestop Collar CFS-C P fixed to one side of the floor + Annular Gap Seal: Mortar or Hilti Firestop Acrylic Selant CFS-S ACR / CP606	-/120/120	Collar Size: 90/3" Pipe Wall Thickness: 2.2mm Mortar Depth: Full depth of floor Sealant Depth: 20mm on underside of floor + PEF backing rod (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø110 Raupiano Plus Pipe	Floor	Concrete Floor (Min. Floor Thickness 120mm)	Hilti Firestop Collar CFS-C P fixed to one side of the floor + Annular Gap Seal: Mortar or Hilti Firestop Acrylic Selant CFS-S ACR / CP606	-/120/120	Collar Size: 110/4" Pipe Wall Thickness: 2.7mm Mortar Depth: Full depth of floor Sealant Depth: 20mm on underside of floor + PEF backing rod (See Report Ref. for full installation details)	EWFA RIR 27006-03

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED COMBUSTIBLE PIPES						
Ø26.7mm CPVC Pipe	Wall	Plaster Board Wall; lined with min. 2 x min. 13mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/120	Collar Size: 50/1.5" Pipe Wall Thickness: 1.9 - 2.1mm Armaflex AF Insulation Thickness: 9mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø33.4mm CPVC Pipe	Wall	Plaster Board Wall; lined with min. 2 x min. 13mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/120	Collar Size: 50/1.5" Pipe Wall Thickness: 2.4 - 2.6mm Armaflex AF Insulation Thickness: 9mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø42.2mm CPVC Pipe	Wall	Plaster Board Wall; lined with min. 2 x min. 13mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/120	Collar Size: 63/2" Pipe Wall Thickness: 3.1 - 3.3mm Armaflex AF Insulation Thickness: 9mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03
Ø48.3mm CPVC Pipe	Wall	Plaster Board Wall; lined with min. 2 x min. 13mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/120	Collar Size: 75/2.5" Pipe Wall Thickness: 3.5 - 3.8mm Armaflex AF Insulation Thickness: 9mm Depth of annular gap seal: full depth of wall lining	EWFA RIR 27006-03
Ø60.3mm CPVC Pipe	Wall	Plaster Board Wall; lined with min. 2 x min. 13mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti Firestop Collar CFS-C P fixed to each side of wall + Hilti Firestop Acrylic Selant CFS-S ACR / CP606 in annular gap each side of wall	-/120/120	Collar Size: 75/2.5" Pipe Wall Thickness: 4.4 - 4.7mm Armaflex AF Insulation Thickness: 13mm Depth of annular gap seal: full depth of wall lining (See Report Ref. for full installation details)	EWFA RIR 27006-03

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED COMBUSTIBLE PIPES						
All sheathed cable types <20mm OD, bundles of cables up to 100% full	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard on each side of stud	Hilti CFS-SL S Speed Sleeve + Hilti CFS-S ACR sealant around sleeve on each side of wall	-/120/60	Opening / Core Hole Size: 63 -76mm Annular Seal Depth min. 20mm Each cable not exceeding 20mm diameter (See Report Ref. for full installation details)	Branz Appraisal No. 813 (2013)
All sheathed cable types <20mm OD, bundles of cables up to 100% full	Wall	Plaster Board Wall;with min. 2 x 13mm / 16mm Fire Rated Plasterboard on each side of stud	Hilti CFS-SL M Speed Sleeve + Hilti CFS-S ACR sealant around sleeve on each side of wall	-/120/60	Opening / Core Hole Size: 113 -122mm Annular Seal Depth min. 20mm Each cable not exceeding 20mm diameter (See Report Ref. for full installation details)	Branz Appraisal No. 813 (2013)
All sheathed cable types <2mm in diameter (not bundles)	Wall	Rigid Wall; Concrete / Masonry Wall (Min. Thickness 100mm)	Hilti CFS-SL S Speed Sleeve + Hilti CFS-S ACR sealant around sleeve on each side of wall	-/120/120	Opening / Core Hole Size: 63 -76mm Annular Seal Depth min. 20mm Max. wall thickness: 200mm (See Report Ref. for full installation details)	Branz Appraisal No. 813 (2013)
All sheathed cable types, bundles up to 36 mm diameter	Wall	Rigid Wall; Concrete / Masonry Wall (Min. Thickness 100mm)	Hilti CFS-SL S Speed Sleeve + Hilti CFS-S ACR sealant around sleeve on each side of wall	-/120/120	Opening / Core Hole Size: 63 -76mm Annular Seal Depth min. 20mm Each cable not exceeding 21 mm Max. wall thickness: 200mm (See Report Ref. for full installation details)	Branz Appraisal No. 813 (2013)
All sheathed cable types up to 21 mm diameter (not bundles)	Wall	Rigid Wall; Concrete / Masonry Wall (Min. Thickness 100mm)	Hilti CFS-SL M Speed Sleeve + Hilti CFS-S ACR sealant around sleeve on each side of wall	-/120/120	Opening / Core Hole Size: 113 -122mm Annular Seal Depth min. 20mm Max. wall thickness: 200mm (See Report Ref. for full installation details)	Branz Appraisal No. 813 (2013)
All sheathed cable types up to 50 mm diameter (not bundles)	Wall	Rigid Wall; Concrete / Masonry Wall (Min. Thickness 100mm)	Hilti CFS-SL M Speed Sleeve + Hilti CFS-S ACR sealant around sleeve on each side of wall	-/120/90	Opening / Core Hole Size:113 -122mm Annular Seal Depth min. 20mm Max. wall thickness: 200mm (See Report Ref. for full installation details)	Branz Appraisal No. 813 (2013)
All sheathed cable types up to 80 mm diameter (not bundles)	Wall	Rigid Wall; Concrete / Masonry Wall (Min. Thickness 100mm)	Hilti CFS-SL M Speed Sleeve + Hilti CFS-S ACR sealant around sleeve on each side of wall	-/120/60	Opening / Core Hole Size:113 -122mm Annular Seal Depth min. 20mm Max. wall thickness: 200mm (See Report Ref. for full installation details)	Branz Appraisal No. 813 (2013)
All sheathed cable types, bundles up to 86 mm diameter	Wall	Rigid Wall; Concrete / Masonry Wall (Min. Thickness 100mm)	Hilti CFS-SL M Speed Sleeve + Hilti CFS-S ACR sealant around sleeve on each side of wall	-/120/120	Opening / Core Hole Size:113 -122mm Annular Seal Depth min. 20mm Each cable not exceeding 21 mm Max. wall thickness: 200mm (See Report Ref. for full installation details)	Branz Appraisal No. 813 (2013)
All sheathed cable types up to 21mm diameter (not bundles)	Floor	Rigid Floor; Concrete Floor (Min. Floor Thickness 150mm)	Hilti CFS-SL S Speed Sleeve + Hilti CFS-S ACR sealant around sleeve on each side of wall	-/120/120	Opening / Core Hole Size:63 -76mm Annular Seal Depth min. 20mm Max. wall thickness: 200mm (See Report Ref. for full installation details)	Branz Appraisal No. 813 (2013)

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED COMBUSTIBLE PIPES						
All sheathed cable types, bundles up to 36 mm diameter	Floor	Rigid Floor; Concrete Floor (Min. Floor Thickness 150mm)	Hilti CFS-SL S Speed Sleeve + Hilti CFS-S ACR sealant around sleeve on each side of wall	-/120/120	Opening / Core Hole Size: 63 -76mm Annular Seal Depth min. 20mm Each cable not exceeding 21 mm Max. wall thickness: 200mm (See Report Ref. for full installation details)	Branz Appraisal No. 813 (2013)
All sheathed cable types up to 50 mm diameter (not bundles)	Floor	Rigid Floor; Concrete Floor (Min. Floor Thickness 150mm)	Hilti CFS-SL M Speed Sleeve + Hilti CFS-S ACR sealant around sleeve on each side of wall	-/120/120	Opening / Core Hole Size: 113 -122mm Annular Seal Depth min. 20mm Max. wall thickness: 200mm (See Report Ref. for full installation details)	Branz Appraisal No. 813 (2013)
All sheathed cable types up to 80 mm diameter (not bundles)	Floor	Rigid Floor; Concrete Floor (Min. Floor Thickness 150mm)	Hilti CFS-SL M Speed Sleeve + Hilti CFS-S ACR sealant around sleeve on each side of wall	-/120/60	Opening / Core Hole Size:113 -122mm Annular Seal Depth min. 20mm Max. wall thickness: 200mm (See Report Ref. for full installation details)	Branz Appraisal No. 813 (2013)
All sheathed cable types, bundles up to 86 mm diameter	Floor	Rigid Floor; Concrete Floor (Min. Floor Thickness 150mm)	Hilti CFS-SL M Speed Sleeve + Hilti CFS-S ACR sealant around sleeve on each side of wall	-/120/120	Opening / Core Hole Size:113 -122mm Annular Seal Depth min. 20mm Each cable not exceeding 21 mm Max. wall thickness: 200mm (See Report Ref. for full installation details)	Branz Appraisal No. 813 (2013)
Single cable up to 16mm OD	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides Backlifting material optional	-/120/120	Blank opening: max. 40mm x 40mm or circular opening of equivalent size Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Single cable up to 16mm OD	Wall	Rigid Wall; Concrete / Solid or Hollow Masonry (Min. Wall Thickness 75mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides Backlifting material optional	-/120/120	Blank opening: max. 40mm x 40mm or circular opening of equivalent size Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Cables bundles up to a bundle size of 20mm	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides Backlifting material optional	-/120/120	Blank opening: max. 40mm x 40mm or circular opening of equivalent size Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Cables bundles up to a bundle size of 20mm	Wall	Rigid Wall; Concrete / Solid or Hollow Masonry (Min. Wall Thickness 75mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides Backlifting material optional	-/120/120	Blank opening: max. 40mm x 40mm or circular opening of equivalent size Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
PVC Insulated Power Cables with Cable Tray	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 50mm,)	-/120/60	Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED COMBUSTIBLE PIPES						
PVC Insulated Power Cables with Cable Tray	Wall	Rigid Wall; Concrete / Solid or Hollow Masonry (Min. Wall Thickness 75mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 50mm,)	-/120/60	Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
PVC Insulated Power Cables with Cable Tray	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Two layers of 10mm wide Hilti Firestop Bandage CFS-P BA each side + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 50mm,)	-/120/120	Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
PVC Insulated Power Cables with Cable Tray	Wall	Rigid Wall; Concrete / Solid or Hollow Masonry (Min. Wall Thickness 75mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Two layers of 10mm wide Hilti Firestop Bandage CFS-P BA each side + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 50mm,)	-/120/120	Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
PVC Insulated Communication Cables with Cable Tray	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 50mm,)	-/120/60	Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
PVC Insulated Communication Cables with Cable Tray	Wall	Rigid Wall; Concrete / Solid or Hollow Masonry (Min. Wall Thickness 75mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 50mm,)	-/120/60	Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
PVC Insulated Communication Cables with Cable Tray	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Two layers of 10mm wide Hilti Firestop Bandage CFS-P BA each side + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 50mm,)	-/120/120	Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
PVC Insulated Communication Cables with Cable Tray	Wall	Rigid Wall; Concrete / Solid or Hollow Masonry (Min. Wall Thickness 75mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Two layers of 10mm wide Hilti Firestop Bandage CFS-P BA each side + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 50mm,)	-/120/120	Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Single PVC conduits and tubes up to 16mm with or without cables or optic fibre cables	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides Backlifting material optional	-/120/120	Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Single PVC conduits and tubes up to 16mm with or without cables or optic fibre cables	Wall	Rigid Wall; Concrete / Solid or Hollow Masonry (Min. Wall Thickness 75mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides Backlifting material optional	-/120/120	Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED COMBUSTIBLE PIPES						
Single PVC conduits with diameter 16mm ≤ Ø ≤ 32mm, wall thickness 1-3mm with or without cables or optic fibre cables	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 50mm,)	-/120/120	Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Single PVC conduits with diameter 16mm ≤ Ø ≤ 32mm, wall thickness 1-3mm with or without cables or optic fibre cables	Wall	Plaster Board Wall; Concrete / Solid or Hollow Masonry (Min. Wall Thickness 75mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 50mm,)	-/120/120	Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Single Steel conduits and tubes up to 16mm and min. 1.5mm wall thickness with or without cables or optic fibre cables	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides Backlifting material optional	-/120/90	Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Single Steel conduits and tubes up to 16mm and min. 1.5mm wall thickness with or without cables or optic fibre cables	Wall	Plaster Board Wall; Concrete / Solid or Hollow Masonry (Min. Wall Thickness 75mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides Backlifting material optional	-/120/90	Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Single Steel conduits and tubes up to 16mm and min. 1.5mm wall thickness with or without cables or optic fibre cables	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Additional sealant in front of wall on both sides Backlifting material optional	-/120/120	Min. depth of seal: 25mm Annular seal width: 10mm Additional sealant min. thickness: 10mm Additional sealant min. length: 25mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Single Steel conduits and tubes up to 16mm and min. 1.5mm wall thickness with or without cables or optic fibre cables	Wall	Rigid Wall; Concrete / Solid or Hollow Masonry (Min. Wall Thickness 75mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Additional sealant in front of wall on both sides Backlifting material optional	-/120/120	Min. depth of seal: 25mm Annular seal width: 10mm Additional sealant min. thickness: 10mm Additional sealant min. length: 25mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Small cable up to 16mm and for bundles up to a bundle size of 20mm	Wall	Rigid Wall; Concrete / Solid or Hollow Masonry (Min. Wall Thickness 150mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides Backlifting material optional	-/120/120	Blank opening: max. 40mm x 40mm or circular opening of equivalent size Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
PVC Insulated Power Cables with Cable Tray	Wall	Rigid Wall; Concrete / Solid or Hollow Masonry (Min. Wall Thickness 150mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Additional sealant in front of wall on both sides + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 100mm,)	-/120/90	Min. depth of seal: 25mm Annular seal width: 10mm Additional sealant min. thickness: 10mm Additional sealant min. length: 50mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED COMBUSTIBLE PIPES						
PVC Insulated Power Cables with Cable Tray	Wall	Rigid Wall; Concrete / Solid or Hollow Masonry (Min. Wall Thickness 150mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Additional sealant in front of wall on both sides + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 100mm,)	-/120/120	Min. depth of seal: 25mm Annular seal width: 10mm Additional sealant min. thickness: 10mm Additional sealant min. length: 100mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
PVC Insulated Communication Cables with Cable Tray	Wall	Rigid Wall; Concrete / Solid or Hollow Masonry (Min. Wall Thickness 150mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Additional sealant in front of wall on both sides + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 100mm,)	-/120/90	Min. depth of seal: 25mm Annular seal width: 10mm Additional sealant min. thickness: 10mm Additional sealant min. length: 50mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
PVC Insulated Communication Cables with Cable Tray	Wall	Rigid Wall; Concrete / Solid or Hollow Masonry (Min. Wall Thickness 150mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Additional sealant in front of wall on both sides + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 100mm,)	-/120/120	Min. depth of seal: 25mm Annular seal width: 10mm Additional sealant min. thickness: 10mm Additional sealant min. length: 100mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Single PVC conduits and tubes up to 16mm with or without cables or optic fibre cables	Wall	Rigid Wall; Concrete / Solid or Hollow Masonry (Min. Wall Thickness 150mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides Backlifting material optional	-/120/120	Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Single PVC conduits with diameter 16mm ≤ Ø ≤ 32mm, wall thickness 1-3mm with or without cables or optic fibre cables	Wall	Rigid Wall; Concrete / Solid or Hollow Masonry (Min. Wall Thickness 150mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 100mm,)	-/120/120	Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Single Steel conduits and tubes up to 16mm and min. 1.5mm wall thickness with or without cables or optic fibre cables	Wall	Rigid Wall; Concrete / Solid or Hollow Masonry (Min. Wall Thickness 150mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides Backlifting material optional	-/120/120	Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
150mm x 150mm Square Blank Opening, no services	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Intumescent Sealant CP 611A on topside + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 95mm,)	-/120/120	Blank opening: max. 150mm x 150mm or circular opening of equivalent size Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Small cable up to 16mm and for bundles up to a bundle size of 20mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Intumescent Sealant CP 611A on topside Backlifting material optional	-/120/120	Blank opening: max. 40mm x 40mm or circular opening of equivalent size Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
PVC Insulated Power Cables with Cable Tray	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Intumescent Sealant CP 611A on topside + Additional sealant on topside + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 95mm,)	-/120/90	Min. depth of seal: 25mm Annular seal width: 10mm Additional sealant min. thickness: 10mm Additional sealant min. length: 30mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED COMBUSTIBLE PIPES						
PVC Insulated Power Cables with Cable Tray	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Intumescent Sealant CP 611A on topside + Additional sealant on topside + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 95mm,)	-/120/120	Min. depth of seal: 25mm Annular seal width: 10mm Additional sealant min. thickness: 10mm Additional sealant min. length: 130mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
PVC Insulated Communication Cables with Cable Tray	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Intumescent Sealant CP 611A on topside + Additional sealant on topside + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 95mm,)	-/120/90	Min. depth of seal: 25mm Annular seal width: 10mm Additional sealant min. thickness: 10mm Additional sealant min. length: 30mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
PVC Insulated Communication Cables with Cable Tray	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Intumescent Sealant CP 611A on topside + Additional sealant on topside + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 95mm,)	-/120/120	Min. depth of seal: 25mm Annular seal width: 10mm Additional sealant min. thickness: 10mm Additional sealant min. length: 130mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Single PVC conduits and tubes up to 16mm with or without cables or optic fibre cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Intumescent Sealant CP 611A on topside + Additional sealant on topside Backlifting material optional	-/120/90	Min. depth of seal: 25mm Annular seal width: 10mm Additional sealant min. thickness: 10mm Additional sealant min. length: 30mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Single PVC conduits and tubes up to 16mm with or without cables or optic fibre cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Intumescent Sealant CP 611A on topside + Additional sealant on topside Backlifting material optional	-/120/120	Min. depth of seal: 25mm Annular seal width: 10mm Additional sealant min. thickness: 10mm Additional sealant min. length: 80mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Single Steel conduits and tubes up to 16mm and min. 1.5mm wall thickness with or without cables or optic fibre cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Intumescent Sealant CP 611A on topside + Additional sealant on topside Backlifting material optional	-/120/90	Min. depth of seal: 25mm Annular seal width: 10mm Additional sealant min. thickness: 10mm Additional sealant min. length: 30mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Single Steel conduits and tubes up to 16mm and min. 1.5mm wall thickness with or without cables or optic fibre cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Intumescent Sealant CP 611A on topside + Additional sealant on topside Backlifting material optional	-/120/120	Min. depth of seal: 25mm Annular seal width: 10mm Additional sealant min. thickness: 10mm Additional sealant min. length: 80mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Single PVC conduits with diameter 16mm ≤ Ø ≤ 32mm, wall thickness 1-3mm with or without cables or optic fibre cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Additional sealant on both sides + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 95mm,)	-/120/120	Min. depth of seal: 25mm Annular seal width: 10mm Additional sealant min. thickness: 10mm Additional sealant min. length: 80mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
INSULATED COMBUSTIBLE PIPES						
Small cable up to 16mm and for bundles up to a bundle size of 20mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Intumescent Sealant CP 611A on topside Backlifting material optional	-/120/120	Blank opening: max. 40mm x 40mm or circular opening of equivalent size Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
PVC Insulated Power Cables with Cable Tray	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Intumescent Sealant CP 611A on topside + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 125mm,)	-/120/90	Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
PVC Insulated Power Cables with Cable Tray	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Intumescent Sealant CP 611A on topside + Additional sealant on topside + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 125mm,)	-/120/120	Min. depth of seal: 25mm Annular seal width: 10mm Additional sealant min. thickness: 10mm Additional sealant min. length: 100mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
PVC Insulated Communication Cables with Cable Tray	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Intumescent Sealant CP 611A on topside + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 125mm,)	-/120/90	Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)"	EWFA RIR 27912900.3
PVC Insulated Communication Cables with Cable Tray	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Intumescent Sealant CP 611A on topside + Additional sealant on topside + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 125mm,)	-/120/120	Min. depth of seal: 25mm Annular seal width: 10mm Additional sealant min. thickness: 10mm Additional sealant min. length: 100mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Single PVC conduits and tubes up to 16mm with or without cables or optic fibre cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Intumescent Sealant CP 611A on topside Backlifting material optional	-/120/90	Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Single PVC conduits and tubes up to 16mm with or without cables or optic fibre cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Intumescent Sealant CP 611A on topside + Additional sealant on topside Backlifting material optional	-/120/120	Min. depth of seal: 25mm Annular seal width: 10mm Additional sealant min. thickness: 10mm Additional sealant min. length: 50mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Single Steel conduits and tubes up to 16mm and min. 1.5mm wall thickness with or without cables or optic fibre cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Intumescent Sealant CP 611A on topside Backlifting material optional	-/120/90	Min. depth of seal: 25mm Annular seal width: 10mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Single Steel conduits and tubes up to 16mm and min. 1.5mm wall thickness with or without cables or optic fibre cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Intumescent Sealant CP 611A on topside + Additional sealant on topside Backlifting material optional	-/120/120	Min. depth of seal: 25mm Annular seal width: 10mm Additional sealant min. thickness: 10mm Additional sealant min. length: 50mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
Single PVC conduits with diameter 16mm ≤ Ø ≤ 32mm, wall thickness 1-3mm with or without cables or optic fibre cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Additional sealant on both sides + Backlifting material: Mineral wool (Tightly compressed, Min. Thickness 125mm,)	-/120/120	Min. depth of seal: 25mm Annular seal width: 10mm Additional sealant min. thickness: 10mm Additional sealant min. length: 50mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Ø16mm x 1.75mm PVC conduit with optic fibre cables or empty	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Hilti Firestop Collar CP 644/ CSF-C P-50/1.5 on both sides	-/120/120	Hole diameter up to 50mm Thickness of penetration seal: 23mm Min. annular gap between conduit and collar edge: 5mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Ø16mm x 1.75mm PVC conduit with optic fibre cables or empty	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 75mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Hilti Firestop Collar CP 644/ CSF-C P-50/1.5 on both sides	-/120/60	Hole diameter up to 50mm Thickness of penetration seal: 23mm Min. annular gap between conduit and collar edge: 5mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Ø16mm x 1.75mm PVC conduit with optic fibre cables or empty	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 128mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Hilti Firestop Collar CP 644/ CSF-C P-50/1.5 on both sides	-/120/120	Hole diameter up to 50mm Thickness of penetration seal: 23mm Min. annular gap between conduit and collar edge: 5mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Ø20mm x 1.95mm PVC conduit with optic fibre cables or empty	Wall	Plaster Board Wall;lined with min. 2 x 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 128mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Hilti Firestop Collar CP 644/ CSF-C P-50/1.5 on both sides	-/120/120	Hole diameter up to 50mm Thickness of penetration seal: 23mm Min. annular gap between conduit and collar edge: 5mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Ø20mm x 1.95mm PVC conduit with optic fibre cables or empty	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 75mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Hilti Firestop Collar CP 644/ CSF-C P-50/1.5 on both sides	-/120/60	Hole diameter up to 50mm Thickness of penetration seal: 23mm Min. annular gap between conduit and collar edge: 5mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Ø20mm x 1.95mm PVC conduit with optic fibre cables or empty	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 128mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Hilti Firestop Collar CP 644/ CSF-C P-50/1.5 on both sides	-/120/120	Hole diameter up to 50mm Thickness of penetration seal: 23mm Min. annular gap between conduit and collar edge: 5mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
Ø25mm x 1.95mm PVC conduit with optic fibre cables or empty	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Hilti Firestop Collar CP 644/ CSF-C P-50/1.5 on both sides	-/120/120	Hole diameter up to 50mm Thickness of penetration seal: 23mm Min. annular gap between conduit and collar edge: 5mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Ø25mm x 1.95mm PVC conduit with optic fibre cables or empty	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 75mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Hilti Firestop Collar CP 644/ CSF-C P-50/1.5 on both sides	-/120/60	Hole diameter up to 50mm Thickness of penetration seal: 23mm Min. annular gap between conduit and collar edge: 5mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Ø25mm x 1.95mm PVC conduit with optic fibre cables or empty	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 128mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Hilti Firestop Collar CP 644/ CSF-C P-50/1.5 on both sides	-/120/120	Hole diameter up to 50mm Thickness of penetration seal: 23mm Min. annular gap between conduit and collar edge: 5mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Ø32mm x 2.25mm PVC conduit with optic fibre cables or empty	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Hilti Firestop Collar CP 644/ CSF-C P-50/1.5 on both sides	-/120/120	Hole diameter up to 50mm Thickness of penetration seal: 23mm Min. annular gap between conduit and collar edge: 5mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Ø32mm x 2.25mm PVC conduit with optic fibre cables or empty	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 75mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Hilti Firestop Collar CP 644/ CSF-C P-50/1.5 on both sides	-/120/60	Hole diameter up to 50mm Thickness of penetration seal: 23mm Min. annular gap between conduit and collar edge: 5mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Ø32mm x 2.25mm PVC conduit with optic fibre cables or empty	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 128mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Hilti Firestop Collar CP 644/ CSF-C P-50/1.5 on both sides	-/120/120	Hole diameter up to 50mm Thickness of penetration seal: 23mm Min. annular gap between conduit and collar edge: 5mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Ø40mm x 2.55mm PVC conduit with optic fibre cables or empty	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Hilti Firestop Collar CP 644/ CSF-C P-50/1.5 on both sides	-/120/120	Hole diameter up to 50mm Thickness of penetration seal: 23mm Min. annular gap between conduit and collar edge: 5mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Ø40mm x 2.55mm PVC conduit with optic fibre cables or empty	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 75mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Hilti Firestop Collar CP 644/ CSF-C P-50/1.5 on both sides	-/120/60	Hole diameter up to 50mm Thickness of penetration seal: 23mm Min. annular gap between conduit and collar edge: 5mm	EWFA RIR 27912900.3

ELECTRICAL SERVICE PENETRATIONS

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
Ø40mm x 2.55mm PVC conduit with optic fibre cables or empty	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Solid or Hollow Masonry (Min. Wall Thickness 128mm)	Hilti Firestop Intumescent Sealant CP 611A on both sides + Hilti Firestop Collar CP 644/ CSF-C P-50/1.5 on both sides	-/120/120	Hole diameter up to 50mm Thickness of penetration seal: 23mm Min. annular gap between conduit and collar edge: 5mm (See Report Ref. for full installation details)	EWFA RIR 27912900.3
Single Cables 4mm ≤ Ø ≤ 25mm	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 75mm)	Hilti Firestop Intumescent Sealant CP 611A	-/60/60	Min. sealant depth: full depth of wall Aperture diameter: 6mm ≤ Ø ≤ 40mm, refer to RIR for more details (See Report Ref. for full installation details)	EWFA RIR 32796900
Single Cables 4mm ≤ Ø ≤ 25mm	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 75mm)	Hilti Firestop Intumescent Sealant CP 611A + Additional Protection: Hilti Firestop Intumescent Sealant CP 611A	-/90/90	Min. sealant depth: 25mm Aperture diameter: 6mm ≤ Ø ≤ 40mm, refer to RIR for more details Min. depth of additional protection: 50mm (See Report Ref. for full installation details)	EWFA RIR 32796900
Single Cables 4mm ≤ Ø ≤ 25mm	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Speedwall Panel / Solid or Hollow Masonry (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A + Additional Protection: Hilti Firestop Intumescent Sealant CP 611A	-/120/120	Min. sealant depth: 25mm Aperture diameter: 6mm ≤ Ø ≤ 40mm, refer to RIR for more details Min. depth of additional protection: 50mm (See Report Ref. for full installation details)	EWFA RIR 32796900
Single Cables 4mm ≤ Ø ≤ 25mm	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Intumescent Sealant CP 611A + Additional Protection: Hilti Firestop Intumescent Sealant CP 611A	-/120/120	Min. sealant depth: 25mm Aperture diameter: 6mm ≤ Ø ≤ 40mm, refer to RIR for more details Min. depth of additional protection: 50mm (See Report Ref. for full installation details)	EWFA RIR 32796900
Up to 60% full of PVC insulated Power Cables with or without cable tray	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/60	Min. seal thickness: 150mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Up to 60% full of PVC insulated Power Cables with or without cable tray	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth + Hilti Firestop Putty Bandage CFS-P BA each side	-/120/120	Min. seal thickness: 150mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Up to 60% full of PVC insulated Communication Cables with or without cable tray	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/60	Min. seal thickness: 150mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
Up to 60% full of PVC insulated Communication Cables with or without cable tray	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth + Hilti Firestop Putty Bandage CFS-P BA each side	-/120/120	Min. seal thickness: 150mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Single Plastic Conduit up to 16mm filled with cables, optic fibres or empty	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/120	Min. seal thickness: 150mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Up to 60% full of PVC insulated Power Cables with or without cable tray	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/90	Min. seal thickness: 200mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Up to 60% full of PVC insulated Power Cables with or without cable tray	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth + Hilti Firestop Putty Bandage CFS-P BA each side	-/120/120	Min. seal thickness: 200mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Up to 60% full of PVC insulated Communication Cables with or without cable tray	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/90	Min. seal thickness: 200mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Up to 60% full of PVC insulated Communication Cables with or without cable tray	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth + Hilti Firestop Putty Bandage CFS-P BA each side	-/120/120	Min. seal thickness: 200mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Up to 60% full of Steel Conduits and Tubes up to 16mm filled with cables, optic fibres or empty	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/120	Min. seal thickness: 200mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Single Plastic Conduit up to 32mm filled with cables, optic fibres or empty	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/120	Min. seal thickness: 200mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm (See Report Ref. for full installation details)	EWFA RIR 37571100.1

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
Bundle Plastic Conduits up to 32mm filled with cables, optic fibres or empty.	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/120	Max. diameter of conduit: 100mm Min. seal thickness: 200mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Up to 60% full of PVC insulated Power Cables with or without cable tray	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Solid or Hollow Masonry (Min. Wall Thickness 75mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/60	Min. seal thickness: 150mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Up to 60% full of PVC insulated Power Cables with or without cable tray	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Solid or Hollow Masonry (Min. Wall Thickness 75mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth + Hilti Firestop Putty Bandage CFS-P BA each side	-/120/120	Min. seal thickness: 150mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Up to 60% full of PVC insulated Communication Cables with or without cable tray	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Solid or Hollow Masonry (Min. Wall Thickness 75mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/60	Min. seal thickness: 150mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Up to 60% full of PVC insulated Communication Cables with or without cable tray	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Solid or Hollow Masonry (Min. Wall Thickness 75mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth + Hilti Firestop Putty Bandage CFS-P BA each side	-/120/120	Min. seal thickness: 150mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Single Plastic Conduit up to 16mm filled with cables, optic fibres or empty	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Solid or Hollow Masonry (Min. Wall Thickness 75mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/120	Min. seal thickness: 150mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Up to 60% full of PVC insulated Power Cables with or without cable tray	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/60	Min. seal thickness: 150mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Up to 60% full of PVC insulated Power Cables with or without cable tray	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth + Hilti Firestop Putty Bandage CFS-P BA top side only	-/120/120	Min. seal thickness: 150mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
Up to 60% full of PVC insulated Communication Cables with or without cable tray	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/60	Min. seal thickness: 150mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Up to 60% full of PVC insulated Communication Cables with or without cable tray	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth + Hilti Firestop Putty Bandage CFS-P BA top side only	-/120/120	Min. seal thickness: 150mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Up to 60% full of Steel Conduits and Tubes up to 16mm filled with cables, optic fibres or empty	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/120	Min. seal thickness: 150mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Single Plastic Conduit up to 16mm filled with cables, optic fibres or empty	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/120	Min. seal thickness: 150mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Up to 60% full of PVC insulated Power Cables with or without cable tray	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Solid or Hollow Masonry (Min. Wall Thickness 75mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/90	Min. seal thickness: 200mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Up to 60% full of PVC insulated Power Cables with or without cable tray	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Solid or Hollow Masonry (Min. Wall Thickness 75mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth + Hilti Firestop Putty Bandage CFS-P BA each side	-/120/120	Min. seal thickness: 200mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Up to 60% full of PVC insulated Communication Cables with or without cable tray	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Solid or Hollow Masonry (Min. Wall Thickness 75mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/90	Min. seal thickness: 200mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Up to 60% full of PVC insulated Communication Cables with or without cable tray	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Solid or Hollow Masonry (Min. Wall Thickness 75mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth + Hilti Firestop Putty Bandage CFS-P BA each side	-/120/120	Min. seal thickness: 200mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
Up to 60% full of Steel Conduits and Tubes up to 16mm filled with cables, optic fibres or empty	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Solid or Hollow Masonry (Min. Wall Thickness 75mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/120	Min. seal thickness: 200mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Single Plastic Conduit up to 32mm filled with cables, optic fibres or empty	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Solid or Hollow Masonry (Min. Wall Thickness 75mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/120	Min. seal thickness: 200mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Bundle Plastic Conduits up to 32mm filled with cables, optic fibres or empty.	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Speedpanel Panel / Solid or Hollow Masonry (Min. Wall Thickness 75mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/120	Max. diameter of conduit: 100mm Min. seal thickness: 200mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Up to 60% full of PVC insulated Power Cables with or without cable tray	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/90	Min. seal thickness: 200mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Up to 60% full of PVC insulated Power Cables with or without cable tray	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth + Hilti Firestop Putty Bandage CFS-P BA top side only	-/120/120	Min. seal thickness: 200mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Up to 60% full of PVC insulated Communication Cables with or without cable tray	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/90	Min. seal thickness: 200mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Up to 60% full of PVC insulated Communication Cables with or without cable tray	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth + Hilti Firestop Putty Bandage CFS-P BA top side only	-/120/120	Min. seal thickness: 200mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Up to 60% full of Steel Conduits and Tubes up to 16mm filled with cables, optic fibres or empty	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/120	Min. seal thickness: 200mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm Max. 60% of seal area to be penetrated (See Report Ref. for full installation details)	EWFA RIR 37571100.1

ELECTRICAL SERVICE PENETRATIONS

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
Single Plastic Conduit up to 32mm filled with cables, optic fibres or empty	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/120	Min. seal thickness: 200mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm (See Report Ref. for full installation details)	EWFA RIR 37571100.1
Bundle Plastic Conduits up to 32mm filled with cables, optic fibres or empty.	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Flexible Firestop Foam CFS-F FX for full seal depth	-/120/120	Max. diameter of conduit: 100mm Min. seal thickness: 200mm Max. opening area: 0.16m2 or max. diameter ≤ 400mm (See Report Ref. for full installation details)	EWFA RIR 37571100.1
PVC Insulated Power Cables	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Plug CFS-PL + Hilti Firestop Intumescent Sealant CP 611A	-/120/60	Min. seal thickness: 150mm Opening size: 52mm ≤ Ø ≤ 202mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm Wall cavity insulation: mineral wool Min. mineral wool thickness: 50mm Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 27937400
PVC Insulated Power Cables	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Plug CFS-PL + Hilti Firestop Intumescent Sealant CP 611A + Hilti Firestop Putty Bandage CFS-P BA	-/120/120	Min. seal thickness: 150mm Opening size: 52mm ≤ Ø ≤ 202mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm Wall cavity insulation: mineral wool Min. mineral wool thickness: 50mm Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 27937400
PVC Insulated Communication Cables	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Plug CFS-PL + Hilti Firestop Intumescent Sealant CP 611A	-/120/60	Min. seal thickness: 150mm Opening size: 52mm ≤ Ø ≤ 202mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm Wall cavity insulation: mineral wool Min. mineral wool thickness: 50mm Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 27937400
PVC Insulated Communication Cables	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Plug CFS-PL + Hilti Firestop Intumescent Sealant CP 611A + Hilti Firestop Putty Bandage CFS-P BA	-/120/120	Min. seal thickness: 150mm Opening size: 52mm ≤ Ø ≤ 202mm Max. 60% of seal area can be penetrated Wall cavity insulation: mineral wool Min. mineral wool thickness: 50mm Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 27937400

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
Single Plastic Conduit up to 40mm filled with cables, optic fibres or empty	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Plug CFS-PL + Hilti Firestop Intumescent Sealant CP 611A	-/120/120	Min. seal thickness: 150mm Opening size: 52mm ≤ Ø ≤ 202mm Max. 60% of seal area can be penetrated Wall cavity insulation: mineral wool Min. mineral wool thickness: 50mm Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 27937400
Conduits up to 20mm filled with cables, optic fibres or empty.	Wall	Plaster Board Wall; lined with min. 2 x 13mm / 16mm Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Plug CFS-PL + Hilti Firestop Intumescent Sealant CP 611A	-/120/120	Max. bundle diameter: 100mm Min. seal thickness: 150mm Opening size: 52mm ≤ Ø ≤ 202mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm Wall cavity insulation: mineral wool Min. mineral wool thickness: 50mm Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 27937400
PVC Insulated Power Cables	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 75mm (+ Aperture Beading))	Hilti Firestop Plug CFS-PL + Hilti Firestop Intumescent Sealant CP 611A	-/120/60	Min. seal thickness: 150mm Opening size: 52mm ≤ Ø ≤ 202mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 27937400
PVC Insulated Power Cables	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 75mm (+ Aperture Beading))	Hilti Firestop Plug CFS-PL + Hilti Firestop Intumescent Sealant CP 611A + Hilti Firestop Putty Bandage CFS-P BA	-/120/120	Min. seal thickness: 150mm Opening size: 52mm ≤ Ø ≤ 202mm Max. 60% of seal area can be penetrated (See Report Ref. for full installation details)	EWFA RIR 27937400
PVC Insulated Communication Cables	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 75mm (+ Aperture Beading))	Hilti Firestop Plug CFS-PL + Hilti Firestop Intumescent Sealant CP 611A	-/120/60	Min. seal thickness: 150mm Opening size: 52mm ≤ Ø ≤ 202mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 27937400
PVC Insulated Communication Cables	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 75mm (+ Aperture Beading))	Hilti Firestop Plug CFS-PL + Hilti Firestop Intumescent Sealant CP 611A + Hilti Firestop Putty Bandage CFS-P BA	-/120/120	Min. seal thickness: 150mm Opening size: 52mm ≤ Ø ≤ 202mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 27937400
Single Plastic Conduit up to 40mm filled with cables, optic fibres or empty	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 75mm (+ Aperture Beading))	Hilti Firestop Plug CFS-PL + Hilti Firestop Intumescent Sealant CP 611A	-/120/120	Min. seal thickness: 150mm Opening size: 52mm ≤ Ø ≤ 202mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 27937400

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
Conduits up to 20mm filled with cables, optic fibres or empty.	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 75mm (+ Aperture Beading))	Hilti Firestop Plug CFS-PL + Hilti Firestop Intumescent Sealant CP 611A	-/120/120	Max. bundle diameter: 100mm Min. seal thickness: 150mm Opening size: 52mm ≤ Ø ≤ 202mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 27937400
PVC Insulated Power Cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Plug CFS-PL + Hilti Firestop Intumescent Sealant CP 611A	-/120/90	Min. seal thickness: 150mm Opening size: 52mm ≤ Ø ≤ 202mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 27937400
PVC Insulated Communication Cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Plug CFS-PL + Hilti Firestop Intumescent Sealant CP 611A	-/120/90	Min. seal thickness: 150mm Opening size: 52mm ≤ Ø ≤ 202mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 27937400
Steel Conduits and Tubes up to 16mm filled with cables, optic fibres or empty	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Plug CFS-PL + Hilti Firestop Intumescent Sealant CP 611A	-/120/120	Min. seal thickness: 150mm Opening size: 52mm ≤ Ø ≤ 202mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 27937400
Non-Standard PVC Insulated Power Cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Plug CFS-PL + Hilti Firestop Intumescent Sealant CP 611A + Hilti Firestop Putty Bandage CFS-P BA	-/120/120	Cables up to Ø48mm may be bundled up to 90mm in diameter Min. seal thickness: 150mm Opening size: 52mm ≤ Ø ≤ 202mm Max. 60% of seal area can be penetrated (See Report Ref. for full installation details)	EWFA RIR 27937400
Non-Standard PVC Insulated Communication Cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Plug CFS-PL + Hilti Firestop Intumescent Sealant CP 611A + Hilti Firestop Putty Bandage CFS-P BA	-/120/120	Cables up to Ø48mm may be bundled up to 90mm in diameter Min. seal thickness: 150mm Opening size: 52mm ≤ Ø ≤ 202mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 27937400
Single Plastic Conduit up to 40mm filled with cables, optic fibres or empty	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Plug CFS-PL + Hilti Firestop Intumescent Sealant CP 611A	-/120/120	Min. seal thickness: 150mm Opening size: 52mm ≤ Ø ≤ 202mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 27937400

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
Conduits up to 20mm filled with cables, optic fibres or empty.	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Plug CFS-PL + Hilti Firestop Intumescent Sealant CP 611A	-/120/120	Max. bundle diameter: 100mm Min. seal thickness: 150mm Opening size: 52mm ≤ Ø ≤ 202mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 27937400
PVC Insulated Power Cables with or without cable tray	Wall	Plaster Board Wall; lined with min. 2 x 12.5mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A	-/120/90	Min. seal thickness: 200mm Max. opening size: 1000mm x 1000mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) OR Aperture lined with Fire Rated Plasterboard each side of stud as required (See Report Ref. for full installation details)	EWFA RIR 28870-00
PVC Insulated Power Cables with or without cable tray	Wall	Plaster Board Wall; lined with min. 2 x 12.5mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A + 1 layer of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Min. seal thickness: 200mm Max. opening size: 1000mm x 1000mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) OR Aperture lined with Fire Rated Plasterboard each side of stud as required (See Report Ref. for full installation details)	EWFA RIR 28870-00
PVC Insulated Communication Cables with or without cable tray	Wall	Plaster Board Wall; lined with min. 2 x 12.5mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A	-/120/90	Min. seal thickness: 200mm Max. opening size: 1000mm x 1000mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) OR Aperture lined with Fire Rated Plasterboard each side of stud as required (See Report Ref. for full installation details)	EWFA RIR 28870-00
PVC Insulated Communication Cables with or without cable tray	Wall	Plaster Board Wall; lined with min. 2 x 12.5mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A + 1 layer of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Min. seal thickness: 200mm Max. opening size: 1000mm x 1000mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) OR Aperture lined with Fire Rated Plasterboard each side of stud as required (See Report Ref. for full installation details)	EWFA RIR 28870-00

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
Single Plastic Conduit up to 40mm filled with cables, optic fibres or empty	Wall	Plaster Board Wall; lined with min. 2 x 12.5mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A	-/120/120	Min. seal thickness: 200mm Max. opening size: 1000mm x 1000mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) OR Aperture lined with Fire Rated Plasterboard each side of stud as required (See Report Ref. for full installation details)"	EWFA RIR 28870-00
Conduits up to 20mm filled with cables, optic fibres or empty.	Wall	Plaster Board Wall; lined with min. 2 x 12.5mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A	-/120/120	Max. bundle diameter: 100mm Min. seal thickness: 200mm Max. opening size: 1000mm x 1000mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) OR Aperture lined with Fire Rated Plasterboard each side of stud as required. (See Report Ref. for full installation details)	EWFA RIR 28870-00
Coaxial cable RFS Cellflex: 27.8mm ≤ Ø ≤ 59.9mm	Wall	Plaster Board Wall; lined with min. 2 x 12.5mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A + 1 layer of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Min. seal thickness: 200mm Max. opening size: 1000mm x 1000mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) OR Aperture lined with Fire Rated Plasterboard each side of stud as required. (See Report Ref. for full installation details)	EWFA RIR 28870-00
Coaxial cable RFS Helifex: 28mm ≤ Ø ≤ 59.9mm	Wall	Plaster Board Wall; lined with min. 2 x 12.5mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A + 1 layer of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Min. seal thickness: 200mm Max. opening size: 1000mm x 1000mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) OR Aperture lined with Fire Rated Plasterboard each side of stud as required. (See Report Ref. for full installation details)	EWFA RIR 28870-00
Coaxial cable RFS Radiaflex: 28.5mm ≤ Ø ≤ 48.2mm	Wall	Plaster Board Wall; lined with min. 2 x 12.5mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A + 1 layer of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Min. seal thickness: 200mm Max. opening size: 1000mm x 1000mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) OR Aperture lined with Fire Rated Plasterboard each side of stud as required. (See Report Ref. for full installation details)	EWFA RIR 28870-00

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
PVC Insulated Power Cables with or without cable tray	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A	-/120/90	Min. seal thickness: 200mm Max. opening size: 1000mm x 1000mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm Aperture lined with Fire Rated Plasterboard each side of stud as required. (See Report Ref. for full installation details)	EWFA RIR 28870-00
PVC Insulated Power Cables with or without cable tray	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A + 1 layer of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Min. seal thickness: 200mm Max. opening size: 1000mm x 1000mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm Aperture lined with Fire Rated Plasterboard each side of stud as required (See Report Ref. for full installation details)	EWFA RIR 28870-00
PVC Insulated Communication Cables with or without cable tray	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A	-/120/90	Min. seal thickness: 200mm Max. opening size: 1000mm x 1000mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm Aperture lined with Fire Rated Plasterboard each side of stud as required (See Report Ref. for full installation details)	EWFA RIR 28870-00
PVC Insulated Communication Cables with or without cable tray	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A + 1 layer of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Min. seal thickness: 200mm Max. opening size: 1000mm x 1000mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm Aperture lined with Fire Rated Plasterboard each side of stud as required (See Report Ref. for full installation details)	EWFA RIR 28870-00
Steel Conduits and Tubes up to 16mm filled with cables, optic fibres or empty	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A	-/120/120	Min. seal thickness: 200mm Max. opening size: 1000mm x 1000mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm Aperture lined with Fire Rated Plasterboard each side of stud as required (See Report Ref. for full installation details)	EWFA RIR 28870-00
Single Plastic Conduit up to 40mm filled with cables, optic fibres or empty	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A	-/120/120	Min. seal thickness: 200mm Max. opening size: 1000mm x 1000mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm Aperture lined with Fire Rated Plasterboard each side of stud as required (See Report Ref. for full installation details)	EWFA RIR 28870-00

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
Conduits up to 20mm filled with cables, optic fibres or empty.	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A	-/120/120	Max. bundle diameter: 100mm Min. seal thickness: 200mm Max. opening size: 1000mm x 1000mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm Aperture lined with Fire Rated Plasterboard each side of stud as required (See Report Ref. for full installation details)	EWFA RIR 28870-00
Coaxial cable RFS Cellflex: 27.8mm ≤ ∅ ≤ 59.9mm	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A + 1 layer of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Min. seal thickness: 200mm Max. opening size: 1000mm x 1000mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm Aperture lined with Fire Rated Plasterboard each side of stud as required (See Report Ref. for full installation details)	EWFA RIR 28870-00
Coaxial cable RFS Helifex: 28mm ≤ ∅ ≤ 59.9mm	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A + 1 layer of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Min. seal thickness: 200mm Max. opening size: 1000mm x 1000mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm Aperture lined with Fire Rated Plasterboard each side of stud as required (See Report Ref. for full installation details)	EWFA RIR 28870-00
Coaxial cable RFS Radiaflex: 28.5mm ≤ ∅ ≤ 48.2mm	Wall	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 100mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A + 1 layer of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Min. seal thickness: 200mm Max. opening size: 1000mm x 1000mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm Aperture lined with Fire Rated Plasterboard each side of stud as required (See Report Ref. for full installation details)	EWFA RIR 28870-00
PVC Insulated Power Cables with or without cable tray	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A	-/120/90	Max. opening size: 1000mm x 1000mm Min. seal thickness: 200mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28870-00
PVC Insulated Power Cables with or without cable tray	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A + 1 layer of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on top side	-/120/120	Max. opening size: 1000mm x 1000mm Min. seal thickness: 200mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28870-00
PVC Insulated Communication Cables with or without cable tray	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A	-/120/90	Max. opening size: 1000mm x 1000mm Min. seal thickness: 200mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28870-00

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
PVC Insulated Communication Cables with or without cable tray	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A + 1 layer of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on top side	-/120/120	Max. opening size: 1000mm x 1000mm Min. seal thickness: 200mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28870-00
Steel Conduits and Tubes up to 16mm filled with cables, optic fibres or empty	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A	-/120/120	Max. opening size: 1000mm x 1000mm Min. seal thickness: 200mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28870-00
Single Plastic Conduit up to 40mm filled with cables, optic fibres or empty	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A	-/120/120	Max. opening size: 1000mm x 1000mm Min. seal thickness: 200mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28870-00
Conduits up to 20mm filled with cables, optic fibres or empty.	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A	-/120/120	Max. bundle diameter: 100mm Max. opening size: 1000mm x 1000mm Min. seal thickness: 200mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28870-00
Coaxial cable RFS Cellflex: 27.8mm ≤ Ø ≤ 59.9mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A	-/120/120	Max. bundle diameter: 100mm Max. opening size: 1000mm x 1000mm Min. seal thickness: 200mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28870-00
Coaxial cable RFS Helifex: 28mm ≤ Ø ≤ 59.9mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A	-/120/120	Max. bundle diameter: 100mm Max. opening size: 1000mm x 1000mm Min. seal thickness: 200mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28870-00
Coaxial cable RFS Radiaflex: 28.5mm ≤ Ø ≤ 48.2mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Block CFS-BL + Hilti Firestop Intumescent Sealant CP 611A	-/120/120	Max. bundle diameter: 100mm Max. opening size: 1000mm x 1000mm Min. seal thickness: 200mm Max. 60% of seal area can be penetrated Min. depth of CP 611A sealant: 20mm (See Report Ref. for full installation details)	EWFA RIR 28870-00

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
PVC Insulated Power Cables	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/120/60	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100
PVC Insulated Power Cables	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/90	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100
PVC Insulated Communication Cables	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/120/60	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100
PVC Insulated Communication Cables	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/90	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundles of PVC Insulated Power Cables up to Ø50mm	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/120/60	Max. bundle diameter: 90mm Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
Bundles of PVC Insulated Power Cables up to Ø50mm	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/90	Max. bundle diameter: 90mm Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundles of PVC Insulated Communication Cables up to Ø50mm	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/120/60	Max. bundle diameter: 90mm Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundle of PVC Insulated Communication Cables up to Ø50mm	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/90	Max. bundle diameter: 90mm Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100
Single Plastic Conduit up to 32mm filled with cables, optic fibres or empty	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/120/120	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundle of Plastic Conduits up to 16mm without cables	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/120/90	Max. bundle diameter: 80mm Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
Bundle of Plastic Conduits up to 16mm filled with cables or optic fibres	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/120/120	Max. bundle diameter: 80mm Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100
Coaxial cable RFS Radiaflex: 28.5mm ≤ Ø ≤ 48.2mm	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/120/120	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3)	EWFA RIR 38022100
Coaxial cable RFS Cellflex: 27.8mm ≤ Ø ≤ 59.9mm	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/120/90	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100
Coaxial cable RFS Helifex: 28mm ≤ Ø ≤ 59.9mm	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/120/90	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100
Blank Opening, no services	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC	-/120/120	Min. seal thickness: 200mm Max. blank opening size: 108mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
PVC Insulated Power Cables	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/120/60	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
PVC Insulated Power Cables	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/90	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
PVC Insulated Communication Cables	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/120/60	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
PVC Insulated Communication Cables	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/90	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)"	EWFA RIR 38022100
Bundles of PVC Insulated Power Cables up to Ø50mm	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/120/60	Max. bundle diameter: 90mm Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundles of PVC Insulated Power Cables up to Ø50mm	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/90	Max. bundle diameter: 90mm Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundles of PVC Insulated Communication Cables up to Ø50mm	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/120/60	Max. bundle diameter: 90mm Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
Bundle of PVC Insulated Communication Cables up to Ø50mm	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/90	Max. bundle diameter: 90mm Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Single Plastic Conduit up to 32mm filled with cables, optic fibres or empty	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/120/120	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundle of Plastic Conduits up to 16mm without cables	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/120/90	Max. bundle diameter: 80mm Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundle of Plastic Conduits up to 16mm filled with cables or optic fibres	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/120/120	Max. bundle diameter: 80mm Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Coaxial cable RFS Radiaflex: 28.5mm ≤ Ø ≤ 48.2mm	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/120/120	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Coaxial cable RFS Cellflex: 27.8mm ≤ Ø ≤ 59.9mm	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/120/90	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
Coaxial cable RFS Helifex: 28mm ≤ Ø ≤ 59.9mm	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/120/90	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Blank Opening, no services	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC	-/60/60	Min. seal thickness: 200mm Max. blank opening size: 108mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3)	EWFA RIR 38022100
PVC Insulated Power Cables	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/60/60	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100
PVC Insulated Power Cables	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/60/60	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100
PVC Insulated Communication Cables	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/60/60	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3)	EWFA RIR 38022100
PVC Insulated Communication Cables	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/60/60	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
Bundles of PVC Insulated Power Cables up to Ø50mm	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/60/60	Max. bundle diameter: 90mm Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundles of PVC Insulated Power Cables up to Ø50mm	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/60/60	Max. bundle diameter: 90mm Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3)	EWFA RIR 38022100
Bundles of PVC Insulated Communication Cables up to Ø50mm	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/60/60	Max. bundle diameter: 90mm Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundle of PVC Insulated Communication Cables up to Ø50mm	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/60/60	Max. bundle diameter: 90mm Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100
Single Plastic Conduit up to 32mm filled with cables, optic fibres or empty	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/60/60	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
Bundle of Plastic Conduits up to 16mm filled with cables, optic fibres, or empty	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/60/60	Max. bundle diameter: 80mm Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100
Coaxial cable RFS Radiaflex: 28.5mm ≤ Ø ≤ 48.2mm	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/60/60	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100
Coaxial cable RFS Cellflex: 27.8mm ≤ Ø ≤ 59.9mm	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/60/60	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100
Coaxial cable RFS Helifex: 28mm ≤ Ø ≤ 59.9mm	Wall	Plaster Board Wall: lined with min. 2 x 13mm / 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti Firestop Cable Collar CFS-CC + Hilti Firestop Intumescent Sealant CP 611A	-/60/60	Min. seal thickness: 200mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side For timber stud wall: Wall cavity filled with Mineral Wool (Min. thickness 50mm, Density 100kg/m3) (See Report Ref. for full installation details)	EWFA RIR 38022100
PVC Insulated Power Cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on each side + Hilti Firestop Intumescent Sealant CP 611A on each side	-/120/90	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
PVC Insulated Power Cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on each side + Hilti Firestop Intumescent Sealant CP 611A on each side + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
PVC Insulated Communication Cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on each side + Hilti Firestop Intumescent Sealant CP 611A on each side	-/120/90	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
PVC Insulated Communication Cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on each side + Hilti Firestop Intumescent Sealant CP 611A on each side + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundles of PVC Insulated Power Cables up to Ø50mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on each side + Hilti Firestop Intumescent Sealant CP 611A on each side	-/120/90	Max. bundle diameter: 90mm Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundles of PVC Insulated Power Cables up to Ø50mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on each side + Hilti Firestop Intumescent Sealant CP 611A on each side + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Max. bundle diameter: 90mm Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundles of PVC Insulated Communication Cables up to Ø50mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on each side + Hilti Firestop Intumescent Sealant CP 611A on each side	-/120/90	Max. bundle diameter: 90mm Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)"	EWFA RIR 38022100

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
Bundle of PVC Insulated Communication Cables up to Ø50mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on each side + Hilti Firestop Intumescent Sealant CP 611A on each side + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Max. bundle diameter: 90mm Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Single Plastic Conduit up to 32mm filled with cables, optic fibres or empty	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on each side + Hilti Firestop Intumescent Sealant CP 611A on each side	-/120/120	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundle of Plastic Conduits up to 16mm filled with cables, optic fibres, or empty	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on each side + Hilti Firestop Intumescent Sealant CP 611A on each side	-/120/120	Max. bundle diameter: 80mm Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Coaxial cable RFS Radiaflex: 28.5mm ≤ Ø ≤ 48.2mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on each side + Hilti Firestop Intumescent Sealant CP 611A on each side	-/120/120	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Coaxial cable RFS Cellflex: 27.8mm ≤ Ø ≤ 59.9mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on each side + Hilti Firestop Intumescent Sealant CP 611A on each side	-/120/120	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Coaxial cable RFS Helifex: 28mm ≤ Ø ≤ 59.9mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on each side + Hilti Firestop Intumescent Sealant CP 611A on each side	-/120/90	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
PVC Insulated Power Cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Cable Collar CFS-CC on each side + Hilti Firestop Intumescent Sealant CP 611A on each side	-/120/60	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
PVC Insulated Power Cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Cable Collar CFS-CC on each side + Hilti Firestop Intumescent Sealant CP 611A on each side + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
PVC Insulated Communication Cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Cable Collar CFS-CC on each side + Hilti Firestop Intumescent Sealant CP 611A on each side	-/120/60	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
PVC Insulated Communication Cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Cable Collar CFS-CC on each side + Hilti Firestop Intumescent Sealant CP 611A on each side + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)"	EWFA RIR 38022100
Bundles of PVC Insulated Power Cables up to Ø50mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Cable Collar CFS-CC on each side + Hilti Firestop Intumescent Sealant CP 611A on each side	-/120/60	Max. bundle diameter: 90mm Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundles of PVC Insulated Power Cables up to Ø50mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Cable Collar CFS-CC on each side + Hilti Firestop Intumescent Sealant CP 611A on each side + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Max. bundle diameter: 90mm Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
Bundles of PVC Insulated Communication Cables up to Ø50mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Cable Collar CFS-CC on each side + Hilti Firestop Intumescent Sealant CP 611A on each side	-/120/60	Max. bundle diameter: 90mm Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundle of PVC Insulated Communication Cables up to Ø50mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Cable Collar CFS-CC on each side + Hilti Firestop Intumescent Sealant CP 611A on each side + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Max. bundle diameter: 90mm Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundle of PVC Insulated Power or Communication Cables up to Ø21mm, phased out in a perpendicular manner though cable collar along topside of floor	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Cable Collar CFS-CC on each side + Hilti Firestop Intumescent Sealant CP 611A on each side	-/120/120	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundle of PVC Insulated Power or Communication Cables up to Ø21mm, phased out in a perpendicular manner though cable collar along topside of floor	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Cable Collar CFS-CC on each side + Hilti Firestop Intumescent Sealant CP 611A on each side + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
PVC Insulated Power Cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on underside only + Hilti Firestop Intumescent Sealant CP 611A on underside only	-/120/90	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
PVC Insulated Power Cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on underside only + Hilti Firestop Intumescent Sealant CP 611A on underside only + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
PVC Insulated Communication Cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on underside only + Hilti Firestop Intumescent Sealant CP 611A on underside only	-/120/90	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
PVC Insulated Communication Cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on underside only + Hilti Firestop Intumescent Sealant CP 611A on underside only + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundles of PVC Insulated Power Cables up to Ø50mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on underside only + Hilti Firestop Intumescent Sealant CP 611A on underside only	-/120/90	Max. bundle diameter: 90mm Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundles of PVC Insulated Power Cables up to Ø50mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on underside only + Hilti Firestop Intumescent Sealant CP 611A on underside only + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Max. bundle diameter: 90mm Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundles of PVC Insulated Communication Cables up to Ø50mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on underside only + Hilti Firestop Intumescent Sealant CP 611A on underside only	-/120/90	Max. bundle diameter: 90mm Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundle of PVC Insulated Communication Cables up to Ø50mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on underside only + Hilti Firestop Intumescent Sealant CP 611A on underside only + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Max. bundle diameter: 90mm Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
Single Plastic Conduit up to 32mm filled with cables, optic fibres or empty	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on underside only + Hilti Firestop Intumescent Sealant CP 611A on underside only	-/120/120	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundle of Plastic Conduits up to 16mm filled with cables, optic fibres, or empty	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on underside only + Hilti Firestop Intumescent Sealant CP 611A on underside only	-/120/120	Max. bundle diameter: 80mm Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Coaxial cable RFS Radiaflex: 28.5mm ≤ Ø ≤ 48.2mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on underside only + Hilti Firestop Intumescent Sealant CP 611A on underside only	-/120/120	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Coaxial cable RFS Cellflex: 27.8mm ≤ Ø ≤ 59.9mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on underside only + Hilti Firestop Intumescent Sealant CP 611A on underside only	-/120/120	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Coaxial cable RFS Helifex: 28mm ≤ Ø ≤ 59.9mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 120mm (+ Aperture Beading))	Hilti Firestop Cable Collar CFS-CC on underside only + Hilti Firestop Intumescent Sealant CP 611A on underside only	-/120/90	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
PVC Insulated Power Cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Cable Collar CFS-CC on underside only + Hilti Firestop Intumescent Sealant CP 611A on underside only	-/120/60	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
PVC Insulated Power Cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Cable Collar CFS-CC on underside only + Hilti Firestop Intumescent Sealant CP 611A on underside only + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
PVC Insulated Communication Cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Cable Collar CFS-CC on underside only + Hilti Firestop Intumescent Sealant CP 611A on underside only	-/120/60	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
PVC Insulated Communication Cables	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Cable Collar CFS-CC on underside only + Hilti Firestop Intumescent Sealant CP 611A on underside only + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundles of PVC Insulated Power Cables up to Ø50mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Cable Collar CFS-CC on underside only + Hilti Firestop Intumescent Sealant CP 611A on underside only	-/120/60	Max. bundle diameter: 90mm Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundles of PVC Insulated Power Cables up to Ø50mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Cable Collar CFS-CC on underside only + Hilti Firestop Intumescent Sealant CP 611A on underside only + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Max. bundle diameter: 90mm Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundles of PVC Insulated Communication Cables up to Ø50mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Cable Collar CFS-CC on underside only + Hilti Firestop Intumescent Sealant CP 611A on underside only	-/120/60	Max. bundle diameter: 90mm Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundle of PVC Insulated Communication Cables up to Ø50mm	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Cable Collar CFS-CC on underside only + Hilti Firestop Intumescent Sealant CP 611A on underside only + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Max. bundle diameter: 90mm Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
ELECTRICAL SERVICE PENETRATIONS						
Bundle of PVC Insulated Power or Communication Cables up to Ø21mm, phased out in a perpendicular manner though cable collar along topside of floor	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Cable Collar CFS-CC on underside only + Hilti Firestop Intumescent Sealant CP 611A on underside only	-/120/120	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Bundle of PVC Insulated Power or Communication Cables up to Ø21mm, phased out in a perpendicular manner though cable collar along topside of floor	Floor	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti Firestop Cable Collar CFS-CC on underside only + Hilti Firestop Intumescent Sealant CP 611A on underside only + 2 layers of 100mm wide Hilti Firestop Putty Bandage CFS-P BA on each side	-/120/120	Min. seal thickness: 250mm Max. opening size: 108mm Max. 60% of seal area can be penetrated Min. depth of intumescent sealant: 20mm Aperture beading: min. 1x 13mm or 16mm Fire Grade Plasterboard each side (See Report Ref. for full installation details)	EWFA RIR 38022100
Control Joints and Gap Seals in Plaster Board	Horizontal Deflection Head or Top-of-wall, Fire Rated Plasterboard to Concrete	Plaster Board Wall; lined with min. 1 x 13mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti CP 606 Acrylic Fire Rated Sealant	-/60/60	Max. joint width: 20mm Min. depth of sealant: depth of wall lining (13mm) (See Report Ref. for full installation details)	EWFA RIR 29226700.1
Control Joints and Gap Seals in Plaster Board	Horizontal Deflection Head or Top-of-wall, Fire Rated Plasterboard to Concrete	Plaster Board Wall; lined with min. 1 x 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 96mm)	Hilti CP 606 Acrylic Fire Rated Sealant	-/90/90	Max. joint width: 20mm Min. depth of sealant: depth of wall lining (16mm) (See Report Ref. for full installation details)	EWFA RIR 29226700.1
Control Joints and Gap Seals in Plaster Board	Horizontal Deflection Head	Plaster Board Wall; lined with min. 2 x min. 13mm /16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti CP 606 Acrylic Fire Rated Sealant	-/120/120	Max. joint width: 30mm Min. depth of sealant: 20mm Backfilling material: PE rod or Mineral wool (See Report Ref. for full installation details)	EWFA RIR 29226700.1
Control Joints and Gap Seals in Plaster Board	Horizontal Deflection Head	Plaster Board Wall; lined with min. 2 x min. 13mm /16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti CP 606 Acrylic Fire Rated Sealant + Backfilling material: PE rod or Mineral wool	-/120/120	Max. joint width: 30mm Min. depth of sealant: depth of wall linings (26mm or 32mm) Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 29226700.1

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
CONSTRUCTION JOINTS						
Control Joints and Gap Seals in Plaster Board	Horizontal Wall, Fire Rated Plasterboard to Floor	Plaster Board Wall; lined with min. 2 x min. 13mm /16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti CP 606 Acrylic Fire Rated Sealant + Backfilling material: PE rod or Mineral wool"	-/120/120	Max. joint width: 30mm Min. depth of sealant: 20mm Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 29226700.1
Control Joints and Gap Seals in Plaster Board	Horizontal Wall, Fire Rated Plasterboard to Floor	Plaster Board Wall; lined with min. 2 x min. 13mm /16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti CP 606 Acrylic Fire Rated Sealant + Backfilling material: PE rod or Mineral wool	-/120/120	Max. joint width: 30mm Min. depth of sealant: depth of wall linings (26mm or 32mm) Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 29226700.1
Control Joints and Gap Seals in Plaster Board	Horizontal Deflection Head	Plaster Board Wall; lined with min. 2x min. 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti CP 606 Acrylic Fire Rated Sealant	-/180/180	Max. joint width: 27mm Min. depth of sealant: 32mm (See Report Ref. for full installation details)	EWFA RIR 29226700.1
Control Joints and Gap Seals in Plaster Board	Vertical Wall to Wall and Control Joints	Plaster Board Wall; lined with min. 1 x min. 13mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti CP 606 Acrylic Fire Rated Sealant + Mineral wool	-/60/60	Max. joint width: 30mm Min. depth of sealant: depth of wall lining (13mm) Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 29226700.1
Control Joints and Gap Seals in Plaster Board	Vertical Wall to Wall and Control Joints	Plaster Board Wall; lined with min. 1 x 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 96mm)	Hilti CP 606 Acrylic Fire Rated Sealant + Mineral wool	-/90/90	Max. joint width: 30mm Min. depth of sealant: depth of wall lining (16mm) Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 29226700.1
Control Joints and Gap Seals in Plaster Board	Vertical Wall to Wall and Control Joints	Plaster Board Wall; lined with min. 2 x min. 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti CP 606 Acrylic Fire Rated Sealant + Backfilling material: PE rod or Mineral wool	-/120/120	Max. joint width: 30mm Min. depth of sealant: 20mm Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 29226700.1
Control Joints and Gap Seals in Plaster Board	Vertical Wall to Wall and Control Joints	Plaster Board Wall;lined with min. 2 x min. 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti CP 606 Acrylic Fire Rated Sealant + Backfilling material: PE rod or Mineral wool	-/120/120	Max. joint width: 30mm Min. depth of sealant: 40mm Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 29226700.1
Linear Joints and Gap Seals in Rigid Walls	Horizontal Deflection Head	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 100mm)	Hilti CP 606 Acrylic Fire Rated Sealant + Backfilling material: PE rod or Mineral wool	-/120/120	Max. joint width: 30mm Min. depth of sealant: 20mm Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 29226700.1
Linear Joints and Gap Seals in Rigid Walls	Horizontal Deflection Head	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 100mm)	Hilti CP 606 Acrylic Fire Rated Sealant + Backfilling material: PE rod or Mineral wool	-/120/120	Max. joint width: 30mm Min. depth of sealant: 40mm Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 29226700.1
Linear Joints and Gap Seals in Rigid Walls	Horizontal Wall to Ceiling	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 100mm)	Hilti CP 606 Acrylic Fire Rated Sealant + Backfilling material: PE rod or Mineral wool	-/120/120	Max. joint width: 30mm Min. depth of sealant: 20mm Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 29226700.1

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
CONSTRUCTION JOINTS						
Linear Joints and Gap Seals in Rigid Walls	Horizontal Wall to Ceiling	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 100mm)	Hilti CP 606 Acrylic Fire Rated Sealant + Backfilling material: PE rod or Mineral wool	-/120/120	Max. joint width: 30mm Min. depth of sealant: 40mm Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 29226700.1
Linear Joints and Gap Seals in Rigid Walls	Vertical Wall to Wall and Control Joints	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 100mm)	Hilti CP 606 Acrylic Fire Rated Sealant + Backfilling material: PE rod or Mineral wool	-/120/120	Max. joint width: 30mm Min. depth of sealant: 20mm Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 29226700.1
Linear Joints and Gap Seals in Rigid Walls	Vertical Wall to Wall and Control Joints	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 100mm)	Hilti CP 606 Acrylic Fire Rated Sealant + Backfilling material: PE rod or Mineral wool	-/120/120	Max. joint width: 30mm Min. depth of sealant: 40mm Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 29226700.1
Linear Joints and Gap Seals in Rigid Walls	Horizontal Deflection Head	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 230mm)	Hilti CP 606 Acrylic Fire Rated Sealant + Backfilling material: PE rod or Mineral wool	-/240/240	Max. joint width: 30mm Min. depth of sealant: 20mm Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 29226700.1
Linear Joints and Gap Seals in Rigid Walls	Horizontal Deflection Head	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 230mm)	Hilti CP 606 Acrylic Fire Rated Sealant + Backfilling material: PE rod or Mineral wool	-/240/180	Max. joint width: 30mm Min. depth of sealant: 40mm Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 29226700.1
Linear Joints and Gap Seals in Rigid Walls	Horizontal Wall to Ceiling	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 230mm)	Hilti CP 606 Acrylic Fire Rated Sealant + Backfilling material: PE rod or Mineral wool	-/240/240	Max. joint width: 30mm Min. depth of sealant: 20mm Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 29226700.1
Linear Joints and Gap Seals in Rigid Walls	Horizontal Wall to Ceiling	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 230mm)	Hilti CP 606 Acrylic Fire Rated Sealant + Backfilling material: PE rod or Mineral wool	-/240/180	Max. joint width: 30mm Min. depth of sealant: 40mm Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 29226700.1
Linear Joints and Gap Seals in Rigid Walls	Vertical Wall to Wall and Control Joints	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 230mm)	Hilti CP 606 Acrylic Fire Rated Sealant + Backfilling material: PE rod or Mineral wool	-/240/240	Max. joint width: 30mm Min. depth of sealant: 20mm Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 29226700.1
Linear Joints and Gap Seals in Rigid Walls	Vertical Wall to Wall and Control Joints	Rigid Wall; Solid Concrete / Aerated Concrete / Masonry (Min. Wall Thickness 230mm)	Hilti CP 606 Acrylic Fire Rated Sealant + Backfilling material: PE rod or Mineral wool	-/240/180	Max. joint width: 30mm Min. depth of sealant: 40mm Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 29226700.1
Gap Seals between Walls and Floors with Metal Decks	Horizontal Fire Rated Plasterboard Wall Parallel with deck profile or Fire Rated Plasterboard Wall Across the deck profile	Plaster Board Wall; lined with min. 1 x min. 13mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 90mm)	Hilti CP 606 Acrylic Fire Rated Sealant + Backfilling material: Mineral wool	-/60/60	Max. joint width: 65mm Min. depth of sealant: 5mm Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 29226700.1

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
CONSTRUCTION JOINTS						
Gap Seals between Walls and Floors with Metal Decks	Horizontal Fire Rated Plasterboard Wall Parallel with deck profile or Fire Rated Plasterboard Wall Across the deck profile	Plaster Board Wall; lined with min. 1 x min. 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 96mm)	Hilti CP 606 Acrylic Fire Rated Sealant + Backfilling material: Mineral wool ((Min. density 100kg/m3)	-/90/90	Max. joint width: 65mm Min. depth of sealant: 5mm Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 29226700.1
Gap Seals between Walls and Floors with Metal Decks	Horizontal Fire Rated Plasterboard Wall Parallel with deck profile or Fire Rated Plasterboard Wall Across the deck profile	Plaster Board Wall; lined with min. 2 x min. 13mm or 16mm Fire Rated Plasterboard each side of stud (Min. Wall Thickness 100mm)	Hilti CP 606 Acrylic Fire Rated Sealant + Backfilling material: Mineral wool	-/120/120	Max. joint width: 65mm Min. depth of sealant: 5mm Min. mineral wool density: 100kg/m3 (See Report Ref. for full installation details)	EWFA RIR 29226700.1
Linear Joints and Gap Seals in Rigid Floors	Floor; Mid Slab Concrete Joint	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti CP 606 Acrylic Fire Rated Sealant + Backfilling material: PE Rod	-/240/240	Max. joint width: 20mm Min. depth of sealant: 10mm (See Report Ref. for full installation details)	EWFA RIR 29226700.1
Linear Joints and Gap Seals in Rigid Floors	Floor; Mid Slab Concrete Joint	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti CP 606 Acrylic Fire Rated Sealant + Backfilling material: CF 126 Foam	-/240/180	Max. joint width: 20mm Min. depth of sealant: 15mm Min. depth of backfilling material: 135mm	EWFA RIR 29226700.1
Linear Joints and Gap Seals in Rigid Floors	Floor; Mid Slab Concrete Joint	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti CP 606 Acrylic Fire Rated Sealant + Backfilling material: Mineral wool	-/240/180	Max. joint width: 30mm Min. depth of sealant: 15mm Min. mineral wool density: 100kg/m3 Min. mineral wool depth: 70mm (See Report Ref. for full installation details)	EWFA RIR 29226700.1
Linear Joints and Gap Seals in Rigid Floors	Floor; Mid Slab Concrete Joint	Rigid Floor; Solid Concrete / Aerated Concrete (Min. Floor Thickness 150mm)	Hilti CP 606 Acrylic Fire Rated Sealant + Backfilling material: Mineral wool	-/240/240	Max. joint width: 15mm Min. depth of sealant: 6mm Min. mineral wool density: 100kg/m3 Min. mineral wool depth: 144mm (See Report Ref. for full installation details)	EWFA RIR 29226700.1

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The products listed in this register have all been tested to AS1530.4-2005 or Assessed to AS 4072.1-2005 as referenced within the New Zealand Building Code.

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report No.	ID/Ref
NON-INSULATED NON-COMBUSTIBLE PIPES							
COPPER/STEEL PIPES	WALL	100MM THICK CONCRETE / MASONRY / HEBEL	INTUSTRAP / INTUMASTIC / ROCKWOOL SLEEVE	/120/120	200MM DIA PIPE	23671.04	62
COPPER/STEEL PIPES	WALL	100MM THICK CONCRETE / MASONRY / HEBEL	INTUSTRAP / INTUMASTIC / ROCKWOOL SLEEVE	/120/120	200MM DIA PIPE	23671.04	59
COPPER/STEEL PIPES	WALL	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC HP / PENOWRAP	/120/120	150MM DIA PIPE	23671.04	57
BRASS PIPES	WALL	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC HP / PENOWRAP	/120/120	100MM DIA PIPE	23671.04	58
STEEL PIPES	WALL	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC HP / PENOWRAP	/120/120	40MM DIA PIPE	23671.04	22
STEEL PIPES	WALL	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC HP / PENOWRAP	/90/90	300MM DIA PIPE	23671.04	21A
STEEL PIPES	WALL	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC HP / PENOWRAP	/120/120	300MM DIA PIPE	23671.04	21B
COPPER PIPES	WALL	110MM THICK WALL - GIB / MASONRY / HEBEL / SPEEDWALL / CLT	INTUBATT (SINGLE LAYER CLOSED CAVITY) / INTUMASTIC	/120/0	50MM DIA PIPE	34088500.9	TABLE 4
COPPER PIPES	WALL	110MM THICK WALL - GIB / MASONRY / HEBEL / SPEEDWALL / CLT	INTUBATT (SINGLE LAYER CLOSED CAVITY) / INTUMASTIC	/120/60	34MM DIA PIPE	34088500.9	TABLE 4
STEEL PIPES	WALL	120MM THICK WALL - GIB / MASONRY / CONCRETE	INTUBATT (ONE LAYER EITHER SIDE OF WALL) / INTUMASTIC	/60/30	87MM DIA PIPE	35084000.2	1
STEEL PIPES	WALL	120MM THICK WALL - GIB / MASONRY / CONCRETE	INTUBATT (ONE LAYER EITHER SIDE OF WALL) / INTUMASTIC	/60/30	87MM DIA PIPE	35084000.2	2
COPPER/STEEL PIPES	WALL	110MM THICK WALL - GIB / MASONRY / HEBEL / 78MM THICK SPEEDWALL / CLT	INTUBATT (ONE LAYER EITHER SIDE OF WALL) / INTUMASTIC	/240/0	150MM DIA PIPE	34088500.9	V27
BRASS PIPES	WALL	110MM THICK WALL - GIB / MASONRY / HEBEL / 78MM THICK SPEEDWALL / CLT	INTUBATT (ONE LAYER EITHER SIDE OF WALL) / INTUMASTIC	/240/0	100MM DIA PIPE	34088500.9	V26
COPPER PIPES	WALL	116MM THICK WALL - GIB / MASONRY / CONCRETE	INTUMASTIC HP	/120/60	67MM DIA PIPE	52208000.1	13
COPPER/STEEL PIPES	WALL	110MM THICK WALL - GIB / MASONRY / HEBEL / 78MM THICK SPEEDWALL / CLT	INTUBATT (ONE LAYER EITHER SIDE OF WALL) / INTUMASTIC / PENOWRAP	/240/120	150MM DIA PIPE	34088500.9	V27
BRASS PIPES	WALL	110MM THICK WALL - GIB / MASONRY / HEBEL / 78MM THICK SPEEDWALL / CLT	INTUBATT (ONE LAYER EITHER SIDE OF WALL) / INTUMASTIC / PENOWRAP	/240/120	100MM DIA PIPE	34088500.9	V26
STEEL PIPES	WALL	130MM THICK WALL - GIB / MASONRY / CONCRETE	INTUBATT (ONE LAYER EITHER SIDE OF WALL) / INTUMASTIC	/120/60	220MM DIA PIPE	35084000.2	5
STEEL PIPES	WALL	90MM THICK WALL - GIB / MASONRY / CONCRETE / 51MM THICK SPEEDWALL	FR BLOCK / PENOWRAP	/60/60	50MM DIA PIPE	FCO-3228	SP17

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report No.	ID/Ref
NON-INSULATED NON-COMBUSTIBLE PIPES							
STEEL PIPES	WALL	130MM THICK WALL - GIB / MASONRY / CONCRETE	INTUMASTIC	/120/90	60MM DIA PIPE	35084000.2	6
COPPER PIPES	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE	INTUSIL	/120/0	15MM DIA PIPE	35256800	1
COPPER PIPES	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE	INTUSIL	/120/0	15MM DIA PIPE	35256800	2
COPPER PIPES	WALL	128MM THICK WALL - GIB / MASONRY / CONCRETE	INTUBATT (ONE LAYER EITHER SIDE OF WALL) / INTUMASTIC / ROCKWOOL SLEEVE	/120/120	152MM DIA PIPE	35084000.2	7
COPPER/STEEL PIPES	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT (ONE LAYER EITHER SIDE OF WALL) / INTUMASTIC / ROCKWOOL SLEEVE	/120/120	200MM DIA PIPE	340885000.9	V29
STEEL PIPES	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT (ONE LAYER EITHER SIDE OF WALL) / INTUMASTIC / PENOWRAP	/90/90	300MM DIA PIPE	340885000.9	V66
STEEL PIPES	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT (ONE LAYER EITHER SIDE OF WALL) / INTUMASTIC / PENOWRAP	/120/120	300MM DIA PIPE	340885000.9	V67
STEEL PIPES	WALL	150MM THICK MASONRY WALLS	INTUCOMPOUND / ROCKWOOL SLEEVE	/240/180	170MM DIA PIPE	35084000.2	97
COPPER PIPES	WALL	150MM THICK MASONRY WALLS	INTUCOMPOUND / ROCKWOOL SLEEVE	/240/60	108MM DIA PIPE	35084000.2	98
STEEL PIPES	CEILING	26MM THICK FR GIB	INTUMASTIC	/60/0	60MM DIA PIPE	35256800	3
COPPER PIPES	CEILING	26MM THICK FR GIB	INTUMASTIC	/60/0	42MM DIA PIPE	35256800	4
STEEL PIPES	CEILING	26MM THICK FR GIB	INTUBATT / INTUMASTIC	/60/0	50MM DIA PIPE	35256800	5
STEEL PIPES	FLOOR	COMPOSITE FLOORIING - 65MM THICK CONCRETE	INTUBATT / INTUMASTIC	/120/30	150MM DIA PIPE	46812800.1	6
COPPER PIPES	FLOOR	COMPOSITE FLOORIING - 65MM THICK CONCRETE	INTUBATT / INTUMASTIC	/120/0	100MM DIA PIPE	46813300.1	6
COPPER / STEEL PIPES	FLOOR	100MM THICK CONCRETE / MASONRY / HEBEL	INTUSTRAP / INTUMASTIC / ROCKWOOL SLEEVE	/120/120	200MM DIA PIPE	23671.04	62
COPPER / STEEL PIPES	FLOOR	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC HP / PENOWRAP	/120/120	150MM DIA PIPE	23671.04	57
BRASS PIPES	FLOOR	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC HP / PENOWRAP	/120/120	100MM DIA PIPE	23671.04	58
COPPER / STEEL PIPES	FLOOR	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC HP / PENOWRAP	/120/120	150MM DIA PIPE	23671.04	60
BRASS PIPES	FLOOR	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC HP / PENOWRAP	/120/120	100MM DIA PIPE	23671.04	61
STEEL PIPES	FLOOR	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC / PENOWRAP	/120/120	40MM DIA PIPE	23671.04	39
STEEL PIPES	FLOOR	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC / PENOWRAP	/90/90	300MM DIA PIPE	23671.04	32A
STEEL PIPES	FLOOR	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC / PENOWRAP	/90/90	300MM DIA PIPE	23671.04	32A
STEEL PIPES	FLOOR	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC / PENOWRAP	/120/120	300MM DIA PIPE	23671.04	32B
STEEL PIPES	FLOOR	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC / PENOWRAP	/120/120	300MM DIA PIPE	23671.04	32B
COPPER / STEEL PIPES	FLOOR	100MM THICK CONCRETE / MASONRY / HEBEL	INTUSTRAP / INTUMASTIC / ROCKWOOL SLEEVE	/120/120	200MM DIA PIPE	23671.04	59
BRASS PIPES	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT	/180/0	100MM DIA PIPE	340885000.9	H15
BRASS PIPES	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / PENOWRAP	/180/120	100MM DIA PIPE	340885000.9	H15
COPPER / STEEL PIPES	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT	/180/0	210MM DIA PIPE	340885000.9	H16
COPPER / STEEL PIPES	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / PENOWRAP	/180/120	210MM DIA PIPE	340885000.9	H16
COPPER / STEEL PIPES	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / ROCKWOOL SLEEVE	/120/120	200MM DIA PIPE	340885000.9	H17
COPPER PIPES	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INSULATION SLEEVE	/120/60	25MM DIA PIPE	340885000.9	H31
STEEL PIPES	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / PENOWRAP	/90/90	300MM DIA PIPE	340885000.9	H47

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report No.	ID/Ref
NON-INSULATED NON-COMBUSTIBLE PIPES							
STEEL PIPES	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / PENOWRAP	/120/120	300MM DIA PIPE	340885000.9	H48
COPPER PIPES	FLOOR	120MM THICK CONCRETE	INTUBATT / INSULATION SLEEVE	/90/60	150MM DIA PIPE	35319300	3
COPPER PIPES	FLOOR	120MM THICK CONCRETE	INTUBATT / ARMAFLEX SLEEVE	/120/120	25MM DIA PIPE	2600703	5
COPPER PIPES	FLOOR	120MM THICK CONCRETE	INTUBATT / INTUMASTIC	/180/0	160MM DIA PIPE	2600703.2A	A
BRASS PIPES	FLOOR	120MM THICK CONCRETE	INTUBATT / INTUMASTIC	/180/0	100MM DIA PIPE	2600703.2A	B
COPPER PIPES	FLOOR	150MM THICK CONCRETE	INTUCOMPOUND / ROCKWOOL SLEEVE	/240/240	15MM DIA PIPE	35084000.2	105
STEEL PIPES	FLOOR	150MM THICK CONCRETE	INTUCOMPOUND / ROCKWOOL SLEEVE	/240/90	170MM DIA PIPE	35084000.2	101
COPPER PIPES	FLOOR	150MM THICK CONCRETE	INTUCOMPOUND / ROCKWOOL SLEEVE	/240/30	108MM DIA PIPE	35084000.2	102
STEEL PIPES	FLOOR	150MM THICK CONCRETE	INTUCOMPOUND / ROCKWOOL SLEEVE	/240/240	40MM DIA PIPE	35084000.2	103
STEEL PIPES	FLOOR	150MM THICK CONCRETE	INTUMASTIC / ROCKWOOL SLEEVE	/120/90	49MM DIA PIPE	35084000.2	3
STEEL PIPES	FLOOR	150MM THICK CONCRETE	INTUBATT (SINGLE LAYER)	/30/0	220MM DIA PIPE	35319300	1
STEEL PIPES	FLOOR	150MM THICK CONCRETE	INTUBATT	/120/30	160MM DIA PIPE	35319300	2
STEEL PIPES	FLOOR	150MM THICK CONCRETE	INTUBATT	/120/0	220MM DIA PIPE	35084000.2	4
INSULATED NON-COMBUSTIBLE PIPES							
COBRAFLEX PIPE / 25MM THICK ARMAFLEX	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / RF COLLAR	/120/120	16 X 8MM DIA PIPES	340885000.9	V45
COPPER PIPE / 40MM THICK ROCKWOOL	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC	/120/120	22MM DIA PIPE	340885000.9	V30
COPPER PIPE / 50MM THICK ROCKWOOL	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUSTRAP / INTUMASTIC	/180/120	32MM DIA PIPE	340885000.9	V28
COPPER PIPE / 50MM THICK FIBREGLASS	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUSTRAP / INTUMASTIC	/180/120	32MM DIA PIPE	340885000.9	V28
COPPER / STEEL PIPE / 38MM THICK ARMAFLEX	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUSTRAP / INTUMASTIC	/180/120	32MM DIA PIPE	340885000.9	V28
COPPER / STEEL PIPE / 38MM THICK ARMAFLEX	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUSTRAP / INTUMASTIC	/180/90	32MM DIA PIPE	340885000.9	V28
COPPER / STEEL PIPE / 50MM THICK PIR	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUSTRAP / INTUMASTIC	/120/120	32MM DIA PIPE	340885000.9	V28
COPPER PIPES / 25MM THICK THERMOTEC	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC HP	/120/60	25MM DIA PIPE	340885000.9	V50
COPPER PIPES / 9MM THICK ARMAFLEX	WALL	90MM THICK WALL - GIB / MASONRY / CONCRETE / 51MM THICK SPEEDWALL	FR BLOCK / INTUMASTIC HP	/60/60	15MM DIA PIPE	FCO-3228	SP8
COPPER PIPES / 9MM THICK ARMAFLEX	WALL	90MM THICK WALL - GIB / MASONRY / CONCRETE / 51MM THICK SPEEDWALL	FR BLOCK / INTUMASTIC HP	/60/60	19MM DIA PIPE	FCO-3228	SP22

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report No.	ID/Ref
INSULATED NON-COMBUSTIBLE PIPES							
COPPER PIPES / 9MM THICK ARMAFLEX	WALL	90MM THICK WALL - GIB / MASONRY / CONCRETE / 51MM THICK SPEEDWALL	FR BLOCK / INTUMASTIC HP	/60/60	19MM DIA PIPE	FCO-3228	SP21
COPPER PIPES / 30MM THICK FIBREGLASS	WALL	142MM THICK WALL - GIB / MASONRY / CONCRETE	INTUMASTIC HP	/120/90	160MM DIA PIPE	52208000.1	11
COPPER PIPES / 33MM THICK ARMAFLEX	WALL	142MM THICK WALL - GIB / MASONRY / CONCRETE	INTUMASTIC HP	/120/30	160MM DIA PIPE	52208000.1	12
COPPER PIPES / 33MM THICK ARMAFLEX	WALL	142MM THICK WALL - GIB / MASONRY / CONCRETE	INTUMASTIC HP	/120/120	67MM DIA PIPE	52208000.1	13
COPPER PIPES / 13MM THICK ARMAFLEX	WALL	142MM THICK WALL - GIB / MASONRY / CONCRETE	INTUMASTIC HP	/120/120	15MM DIA PIPE	52208000.1	14
COPPER PIPES / 33MM THICK ARMAFLEX	WALL	142MM THICK WALL - GIB / MASONRY / CONCRETE	INTUMASTIC HP	/120/120	15MM DIA PIPE	52208000.1	15
COPPER PIPES / 33MM THICK ARMAFLEX	WALL	142MM THICK WALL - GIB / MASONRY / CONCRETE	INTUMASTIC HP	/120/120	40MM DIA PIPE	52208000.1	16
STEEL PIPES / 38MM THICK ARMAFLEX	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE	INTUBATT / INTUSTRAP / INTUMASTIC	/120/60	220MM DIA PIPE	35256800	6
STEEL PIPES / 38MM THICK ARMAFLEX	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE	INTUBATT / INTUSTRAP / INTUMASTIC	/120/60	220MM DIA PIPE	35256800	6
STEEL PIPES / 50MM THICK FIBREGLASS	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE	INTUBATT / INTUSTRAP / INTUMASTIC	/120/90	220MM DIA PIPE	35256800	7
COPPER PIPES / 32MM THICK ARMAFLEX	WALL	130MM THICK GIB / MASONRY / CONCRETE	INTUSLEEVE / INTUMASTIC	/120/120	15MM DIA PIPE	35084000.2	8
COPPER PIPES / 50MM THICK FIBREGLASS	WALL	130MM THICK GIB / MASONRY / CONCRETE	INTUSLEEVE / INTUMASTIC	/120/120	15MM DIA PIPE	35084000.2	9
COPPER PIPES / 38MM THICK ARMAFLEX	WALL	128MM THICK GIB / MASONRY / CONCRETE	INTUBATT / INTUSTRAP	/120/90	25MM DIA PIPE	35084000.2	10
COPPER PIPES / 50MM THICK FIBREGLASS	WALL	128MM THICK GIB / MASONRY / CONCRETE	INTUBATT / INTUSTRAP	/120/90	25MM DIA PIPE	35084000.2	11
COPPER PIPES / 30MM THICK PIR	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE	INTUBATT / INTUMASTIC HP	/120/120	22MM DIA PIPE	35319300	4
COPPER PIPES / ARMAFLEX	WALL	GIB / MASONRY / HEBEL / SPEEDWALL / CLT	INTUBATT / RF COLLAR	/120/120	2 A/C PIPES	34088500.9	V18
COPPER PIPES / 50MM THICK FIBREGLASS	WALL	128MM THICK GIB / MASONRY / CONCRETE	INTUBATT / INTUSTRAP	/180/90	25MM DIA PIPE	35084000.2	11
COPPER PIPES / 38MM THICK ARMAFLEX	WALL	128MM THICK GIB / MASONRY / CONCRETE	INTUBATT / INTUSTRAP	/180/90	25MM DIA PIPE	35084000.2	10
COPPER PIPES / 30MM THICK PIR	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC HP	/120/120	22MM DIA	340885000.9	V31
COPPER PIPES / 25MM THICK ARMAFLEX	WALL	100MM THICK MASONRY WALL	INTUMASTIC HP	/120/120	25MM DIA	23671.4	25
COPPER PIPES / 60MM THICK FIBREGLASS	WALL	150MM THINK MASONRY WALL	INTUCOMPOUND	/240/60	108MM DIA PIPE	35084000.2	98
COPPER PIPES / 40MM THICK ROCKWOOL	WALL	150MM THINK MASONRY WALL	INTUCOMPOUND	/240/180	15MM DIA PIPE	35084000.2	99
COPPER PIPES / 60MM THICK FIBREGLASS	WALL	150MM THINK MASONRY WALL	INTUCOMPOUND	/240/240	15MM DIA PIPE	35084000.2	103
STEEL PIPE / 25MM THICK ARMAFLEX	CEILING	26MM THICK FR GIB	INTUMASTIC HP	/60/30	34MM DIA PIPE	35256800	8
COPPER PIPES / 25MM THICK ARMAFLEX	FLOOR	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC HP	/120/120	25MM DIA	23671.4	36
COPPER PIPES / 38MM THICK ARMAFLEX	FLOOR	120MM THICK CONCRETE	INTUBATT / INTUSTRAP	/120/120	25MM DIA PIPE	35084000.2	14
COPPER PIPES / 50MM THICK PIR INSULATION	FLOOR	120MM THICK CONCRETE	INTUBATT / INTUSTRAP	/120/90	25MM DIA PIPE	2600703.2A	D
COPPER PIPES / 50MM THICK GLASSFIBRE INSULATION	FLOOR	120MM THICK CONCRETE	INTUBATT / INTUSTRAP	/180/90	25MM DIA PIPE	2600703.2A	F

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report No.	ID/Ref
INSULATED NON-COMBUSTIBLE PIPES							
COPPER PIPES / 50MM THICK ROCKWOOL INSULATION	FLOOR	120MM THICK CONCRETE	INTUBATT / INTUSTRAP	/180/90	25MM DIA PIPE	2600703.2A	G
COPPER / 40MM THICK ARMAFLEX	FLOOR	COMPOSITE FLOORING - 65MM THICK CONCRETE	INTUBATT / INTUSTRAP	/120/90	80MM DIA PIPE	46812300.1	7
COPPER / STEEL PIPES / 38MM THICK ARMAFLEX	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUSTRAP	/120/120	32MM DIA	340885000.9	H18
STEEL PIPES / 38MM THICK ARMAFLEX	FLOOR	150MM THICK CONCRETE	INTUCOLLAR	/120/60	89MM DIA PIPE	35256800	9
STEEL PIPES / 40MM THICK ARMAFLEX	FLOOR	150MM THICK CONCRETE	INTUMASTIC HP	/90/60	89MM DIA PIPE	35256800	10
STEEL PIPES / 38MM THICK ARMAFLEX	FLOOR	150MM THICK CONCRETE	INTUBATT (SINGLE LAYER) / INTUSTRAP	/30/30	220MM DIA PIPE	35256800	11
STEEL PIPES / 50MM THICK FIBREGLASS	FLOOR	150MM THICK CONCRETE	INTUBATT (SINGLE LAYER) / INTUSTRAP	/90/30	220MM DIA PIPE	35256800	12
COPPER PIPES / 50MM THICK FIBREGLASS	FLOOR	150MM THICK CONCRETE	INTUSTRAP / INTUMASTIC	/120/120	15MM DIA PIPE	35084000.2	12
COPPER PIPES / 35MM THICK ARMAFLEX	FLOOR	150MM THICK CONCRETE	INTUSTRAP / INTUMASTIC	/120/120	15MM DIA PIPE	35084000.2	13
STEEL PIPES / 60MM THICK FIBREGLASS	FLOOR	150MM THICK CONCRETE	INTUSTRAP	/60/30	160MM DIA PIPE	35319300	5
STEEL PIPES / 60MM THICK ARMAFLEX	FLOOR	150MM THICK CONCRETE	INTUBATT / INTUSTRAP	/60/0	160MM DIA PIPE	35319300	6
STEEL PIPES / 40MM THICK ARMAFLEX	FLOOR	150MM THICK CONCRETE	INTUBATT / INTUSTRAP	/240/30	220MM DIA PIPE	35319300	7
STEEL PIPES / 38MM THICK ARMAFLEX	FLOOR	150MM THICK CONCRETE	INTUCOMPOUND / INTUSTRAP	/180/180	55MM DIA PIPE	35084000.2	15
STEEL PIPES / 50MM THICK FIBREGLASS	FLOOR	150MM THICK CONCRETE	INTUCOMPOUND / INTUSTRAP	/60/60	160MM DIA PIPE	35084000.2	16
COPPER PIPES / 60MM THICK FIBREGLASS	FLOOR	150MM THICK CONCRETE	INTUCOMPOUND / INTUSTRAP	/240/240	15MM DIA PIPE	35084000.2	104
STEEL PIPES / 38MM THICK ARMAFLEX	FLOOR	150MM THICK CONCRETE	INTUCOLLAR	/120/60	89MM DIA PIPE	35256800	9
STEEL PIPES / 40MM THICK ARMAFLEX	FLOOR	150MM THICK CONCRETE	INTUMASTIC HP	/90/60	89MM DIA PIPE	35256800	10
STEEL PIPES / 38MM THICK ARMAFLEX	FLOOR	150MM THICK CONCRETE	INTUBATT (SINGLE LAYER) / INTUSTRAP	/30/30	220MM DIA PIPE	35256800	11
STEEL PIPES / 50MM THICK FIBREGLASS	FLOOR	150MM THICK CONCRETE	INTUBATT (SINGLE LAYER) / INTUSTRAP	/90/30	220MM DIA PIPE	35256800	12
COPPER PIPES / 50MM THICK FIBREGLASS	FLOOR	150MM THICK CONCRETE	INTUSTRAP / INTUMASTIC	/120/120	15MM DIA PIPE	35084000.2	12
COPPER PIPES / 35MM THICK ARMAFLEX	FLOOR	150MM THICK CONCRETE	INTUSTRAP / INTUMASTIC	/120/120	15MM DIA PIPE	35084000.2	13
STEEL PIPES / 60MM THICK FIBREGLASS	FLOOR	150MM THICK CONCRETE	INTUSTRAP	/60/30	160MM DIA PIPE	35319300	5
STEEL PIPES / 60MM THICK ARMAFLEX	FLOOR	150MM THICK CONCRETE	INTUBATT / INTUSTRAP	/60/0	160MM DIA PIPE	35319300	6
STEEL PIPES / 40MM THICK ARMAFLEX	FLOOR	150MM THICK CONCRETE	INTUBATT / INTUSTRAP	/240/30	220MM DIA PIPE	35319300	7
STEEL PIPES / 38MM THICK ARMAFLEX	FLOOR	150MM THICK CONCRETE	INTUCOMPOUND / INTUSTRAP	/180/180	55MM DIA PIPE	35084000.2	15
STEEL PIPES / 50MM THICK FIBREGLASS	FLOOR	150MM THICK CONCRETE	INTUCOMPOUND / INTUSTRAP	/60/60	160MM DIA PIPE	35084000.2	16
COPPER PIPES / 60MM THICK FIBREGLASS	FLOOR	150MM THICK CONCRETE	INTUCOMPOUND / INTUSTRAP	/240/240	15MM DIA PIPE	35084000.2	104

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report No.	ID/Ref
NON-INSULATED COMBUSTIBLE PIPES							
HDPE PIPE	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUSTRAP	/240/120	40MM DIA PIPE	340885000.9	V39
PVC PIPE	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUSTRAP	/240/240	40MM DIA PIPE	340885000.9	V32
PVC PIPE	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / RF COLLARS	/120/120	150MM DIA PIPE	340885000.9	V33 - V38
HDPE PIPE	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / RF COLLARS	/120/120	110MM DIA PIPE	340885000.9	V40 - V44
PVC PIPE / BLAZEMASTER HARTVEL SPRINKLER	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUSTRAP	/180/180	48MM DIA PIPE	340885000.9	V51 - V52
PVC PIPE / BLAZEMASTER HARTVEL SPRINKLER	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC HP	/180/180	34MM DIA PIPE	340885000.9	V53
PVC PIPE / BLAZEMASTER HARTVEL SPRINKLER	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC HP	/120/120	48MM DIA PIPE	340885000.9	V54
PVC PIPE / BLAZEMASTER HARTVEL SPRINKLER	WALL	116MM THICK GIB / 100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC HP	/120/120	34MM DIA PIPE	23671.04	23
PVC PIPE / BLAZEMASTER HARTVEL SPRINKLER	WALL	116MM THICK GIB / 100MM THICK CONCRETE / MASONRY / HEBEL	INTUSTRAP	/120/120	34MM DIA PIPE	23671.04	23
PVC PIPE / BLAZEMASTER HARTVEL SPRINKLER	WALL	116MM THICK GIB / 100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC HP	/120/120	48MM DIA PIPE	23671.04	24
PVC PIPE / BLAZEMASTER HARTVEL SPRINKLER	WALL	116MM THICK GIB / 100MM THICK CONCRETE / MASONRY / HEBEL	INTUSTRAP	/120/120	48MM DIA PIPE	23671.04	24
PVC PIPE / COUPLING / KNUCKLE JOINT	WALL	116MM THICK WALL - GIB / MASONRY / CONCRETE	SL COLLAR	/90/60	110MM DIA PIPE	46469500.2	H
PVC PIPE / COUPLING / KNUCKLE JOINT	WALL	116MM THICK WALL - GIB / MASONRY / CONCRETE	INTUSLEEVE / INTUMASTIC HP	/90/0	110MM DIA PVC PIPE WITH COUPLING	51028300.1	C
PVC PIPE	WALL	116MM THICK WALL - GIB / MASONRY / CONCRETE	80MM DIA PVC PIPE - 160MM DIA SL COLLAR - INTUMASTIC HP	90/90	80MM DIA PVC PIPE PASSING VIA 160MM DIA SL COLLAR	51028300.1	E
PVC PIPE	WALL	116MM THICK WALL - GIB / MASONRY / CONCRETE	80MM DIA PVC PIPE - 160MM DIA INTUSLEEVE - INTUMASTIC HP	90/60	80MM DIA PVC PIPE PASSING VIA 160MM DIA INTUSLEEVE	51028300.1	F
PVC PIPE	WALL	116MM THICK WALL - GIB / MASONRY / CONCRETE	INTUSLEEVE 300	/60/60	160MM DIA PIPE	46469500.2	G
PVC PIPE	WALL	116MM THICK WALL - GIB / MASONRY / CONCRETE	SL COLLAR	/90/60	160MM DIA PIPE	46469500.2	F
PEX PIPE	WALL	116MM THICK WALL - GIB / MASONRY / CONCRETE	INTUMASTIC HP	/60/0	32MM DIA PIPE	46469500.2	B
PEX PIPE	WALL	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC HP	/120/120	43MM DIA PIPE	23671.04	26
PEX PIPE	WALL	116MM THICK WALL - GIB / MASONRY / CONCRETE	INTUMASTIC HP	/120/120	43MM DIA PIPE	23671.04	26

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report No.	ID/Ref
NON-INSULATED COMBUSTIBLE PIPES							
PEX AL PIPE	WALL	116MM THICK WALL - GIB / MASONRY / CONCRETE	INTUMASTIC HP	/120/120	43MM DIA PIPE	23671.04	28
PEX AL PIPE	WALL	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC HP	/120/120	43MM DIA PIPE	23671.04	28
PEX AL PIPE	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUMASTIC HP	/180/180	16MM DIA PIPE	340885000.9	V55
PEX PIPE	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUMASTIC HP	/180/180	16MM DIA PIPE	340885000.9	V57
PEX AL PIPE	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUMASTIC HP	/120/120	43MM DIA PIPE	340885000.9	V68
PEX PIPE	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUMASTIC HP	/120/120	43MM DIA PIPE	340885000.9	V69
PVC PIPE	WALL	90MM THICK WALL - GIB / MASONRY / CONCRETE / 51MM THICK SPEEDWALL	FR BLOCK / INTUMASTIC HP	/60/60	50MM DIA PIPE	FCO-3228	SP13 - 23
HDPE PIPE	WALL	90MM THICK WALL - GIB / MASONRY / CONCRETE / 51MM THICK SPEEDWALL	FR BLOCK / INTUMASTIC HP	/60/60	40M DIA PIPE	FCO-3228	SP10
PEX PIPE	WALL	90MM THICK WALL - GIB / MASONRY / CONCRETE / 51MM THICK SPEEDWALL	FR BLOCK / INTUMASTIC HP	/60/60	32MM DIA PIPE	FCO-3228	SP11
PEX AL PIPE	WALL	90MM THICK WALL - GIB / MASONRY / CONCRETE / 51MM THICK SPEEDWALL	FR BLOCK / INTUMASTIC HP	/60/60	16MM DIA PIPE	FCO-3228	SP12
PVC SPIGOT / PVC FLEXI DRAIN	WALL	90MM THICK WALL - GIB / MASONRY / CONCRETE / 51MM THICK SPEEDWALL	FR BLOCK / INTUMASTIC HP	/60/60		FCO-3228	SP18
PEX / AL / PE PIPES	WALL	90MM THICK WALL - GIB / MASONRY / CONCRETE / 51MM THICK SPEEDWALL	FR BLOCK / INTUMASTIC HP	/60/60	32MM DIA PIPE	FCO-3228	SP24
PVC PIPE	WALL	128MM THICK GIB WALL	INTUCOLLAR GV	/120/60	100MM DIA PIPE	FAR 4035	G
PVC PIPE	WALL	120MM THICK MASONRY WALL	INTUCOLLAR GV	/120/90	100MM DIA PIPE	FAR 4035	G
PVC PIPE	WALL	GIB / MASONRY / CONCRETE	INTUCOLLAR GV	/120/120	40MM DIA PIPE	FAR 4035	G
HDPE PIPE	WALL	128MM THICK WALL - GIB / MASONRY / CONCRETE	INTUBATT / INTUSTRAP	/120/120	40MM DIA PIPE	35084000.2	17
PVC PIPE	WALL	128MM THICK WALL - GIB / MASONRY / CONCRETE	INTUBATT / INTUSTRAP	/120/120	43MM DIA PIPE	35084000.2	20
PVC PIPE	WALL	192MM THICK GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUSTRAP	/240/0	50MM DIA PIPE	2600700	G
PVC PIPE	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE	INTUBATT / INTUSTRAP	/120/120	55MM DIA PIPE	35319300	8
HDPE PIPE	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE	INTUCOLLAR	/90/90	160MM DIA PIPE	35256800	13 - 16
PPR PIPE	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE	INTUCOLLAR	/90/90	75MM DIA PIPE	35256800	17
ABS PIPE	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE	INTUCOLLAR	/90/90	90MM DIA PIPE	35256800	18
PVC PIPE	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE	INTUCOLLAR	/120/60	55MM DIA PIPE	35256800	19
PVC PIPE	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE	INTUCOLLAR	/60/60	160MM DIA PIPE	35256800	20-21
HDPE PIPE	WALL	130MM THICK GIB / MASONRY / CONCRETE	INTUSLEEVE / ROCKWOOL SLEEVE	/120/120	110MM DIA PIPE	35084000.2	18

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report No.	ID/Ref
NON-INSULATED COMBUSTIBLE PIPES							
PVC PIPE	WALL	130MM THICK GIB / MASONRY / CONCRETE	INTUSLEEVE / ROCKWOOL SLEEVE	/120/120	50MM DIA PIPE	35084000.2	19
HDPE PIPE	WALL	128MM THICK GIB / MASONRY / CONCRETE	INTUBATT / INTUSTRAP	/240/120	40MM DIA PIPE	35084000.2	17
PVC PIPE	WALL	128MM THICK GIB / MASONRY / CONCRETE	INTUBATT / INTUSTRAP	/240/240	43MM DIA PIPE	35084000.2	20
HDPE PIPE	WALL	100MM THICK MASONRY	INTUMASTIC HP	/120/120	40MM DIA	23671.04	29
HDPE PIPE	WALL	100MM THICK MASONRY	INTUMASTIC HP	/120/120	22MM DIA	23671.04	30
PVC PIPE	CEILINGS	26MM THICK GIB	INTUCOLLAR	/60/30	110MM DIA PIPE	35256800	22
PVC PIPE	FLOOR	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC HP	/120/120	22MM DIA PIPE	23671.04	41
PVC PIPE / BLAZEMASTER HARTVEL SPRINKLER	FLOOR	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC HP	/120/120	34MM DIA PIPE	23671.04	34
PVC PIPE / BLAZEMASTER HARTVEL SPRINKLER	FLOOR	100MM THICK CONCRETE / MASONRY / HEBEL	INTUSTRAP	/120/120	34MM DIA PIPE	23671.04	34
PVC PIPE / BLAZEMASTER HARTVEL SPRINKLER	FLOOR	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC HP	/120/120	48MM DIA PIPE	23671.04	35
PVC PIPE / BLAZEMASTER HARTVEL SPRINKLER	FLOOR	100MM THICK CONCRETE / MASONRY / HEBEL	INTUSTRAP	/120/120	48MM DIA PIPE	23671.04	35
PEX PIPE	FLOOR	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC HP	/120/120	43MM DIA PIPE	23671.04	37
PEX AL	FLOOR	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC HP	/120/120	43MM DIA PIPE	23671.04	39
HDPE PIPE	FLOOR	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC HP	/120/120	40MM DIA PIPE	23671.04	40
PEX PIPE	FLOOR	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC HP	/120/120	43MM DIA PIPE	23671.04	56
HDPE PIPE	FLOOR	120MM THICK CONCRETE	INTUBATT / INTUSTRAP / INTUMASTIC	/180/180	40MM DIA PIPE	2600703.2A	C
HDPE PIPE	FLOOR	120MM THICK CONCRETE	INTUBATT / INTUSLEEVE	/120/120	112MM DIA PIPE	35319300	11
PVC PIPE	FLOOR	120MM THICK CONCRETE	INTUBATT / INTUSLEEVE	/90/90	110MM DIA PIPE	35319300	12
PVC PIPE	FLOOR	120MM THICK CONCRETE	INTUBATT / INTUSLEEVE	/120/120	69MM DIA PIPE	35319300	13
PVC PIPE	FLOOR	120MM THICK CONCRETE	INTUCOLLAR GV	/120/120	100MM DIA PIPE	FAR 4035	G
PVC PIPE	FLOOR	COMPOSITE FLOORING - 65MM THICK CONCRETE	INTUBATT / SL COLLAR	/90/60	160MM DIA PIPE	46812300.1	1
HDPE PIPE	FLOOR	COMPOSITE FLOORING - 65MM THICK CONCRETE	INTUBATT / SL COLLAR	/120/120	160MM DIA PIPE	46812300.1	2
DBLUE ACOUSTIC PIPE	FLOOR	COMPOSITE FLOORING - 65MM THICK CONCRETE	INTUBATT / SL COLLAR	/120/120	160MM DIA PIPE	46812300.1	3
PPR-CT PIPE	FLOOR	COMPOSITE FLOORING - 65MM THICK CONCRETE	INTUBATT / SL COLLAR	/30/30	125MM DIA PIPE	46812300.1	4
PVC PIPE	FLOOR	COMPOSITE FLOORING - 65MM THICK CONCRETE	INTUBATT / INTUSTRAP	/90/0	110MM DIA PIPE	46812800.1	7
PVC PIPE	FLOOR	COMPOSITE FLOORING - 65MM THICK CONCRETE	INTUSLEEVE	/120/60	160MM DIA PIPE	46812800.1	1
HDPE PIPE	FLOOR	COMPOSITE FLOORING - 65MM THICK CONCRETE	INTUSLEEVE	/120/60	160MM DIA PIPE	46812800.1	2
DBLUE ACOUSTIC PIPE	FLOOR	COMPOSITE FLOORING - 65MM THICK CONCRETE	INTUSLEEVE	/120/60	160MM DIA PIPE	46812800.1	3
PPR-CT PIPE	FLOOR	COMPOSITE FLOORING - 65MM THICK CONCRETE	INTUSLEEVE	/120/60	110MM DIA PIPE	46812800.1	8
PVC PIPE	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUSTRAP	/60/60	110MM DIA PIPE	340885000.9	H20

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report No.	ID/Ref
NON-INSULATED COMBUSTIBLE PIPES							
PVC PIPE	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / RF COLLAR	/120/120	160MM DIA PIPE	340885000.9	H21 - H26
HDPE PIPE	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / RF COLLAR	/120/120	160MM DIA PIPE	340885000.9	H27-H29
PVC PIPE / BLAZEMASTER HARTVEL SPRINKLER	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUSTRAP	/180/180	48MM DIA PIPE	340885000.9	H32-H33
PVC PIPE / BLAZEMASTER HARTVEL SPRINKLER	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC HP	/120/120	48MM DIA PIPE	340885000.9	H35
PVC PIPE / BLAZEMASTER HARTVEL SPRINKLER	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC HP	/180/180	34MM DIA PIPE	340885000.9	H34
PEX - AL PIPE	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC HP	/120/120	43MM DIA PIPE	340885000.9	H49
PEX - AL PIPE	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC HP	/180/180	16MM DIA PIPE	340885000.9	H36
PEX PIPE	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC HP	/120/120	43MM DIA PIPE	340885000.9	H50
PEX PIPE	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC HP	/180/180	16MM DIA PIPE	340885000.9	H38
HDPE PIPE	FLOOR	150MM THICK CONCRETE	INTUBATT (SINGLE LAYER) / INTUSTRAP / INTUMASTIC	/60/60	55MM DIA PIPE	35319300	9
HDPE PIPE	FLOOR	150MM THICK CONCRETE	INTUCOLLAR	/90/90	160MM DIA PIPE	35256800	23
HDPE PIPE	FLOOR	150MM THICK CONCRETE	INTUCOLLAR	/120/120	110MM DIA PIPE	35256800	24 - 26
PPR PIPE	FLOOR	150MM THICK CONCRETE	INTUCOLLAR	/120/120	75MM DIA PIPE	35256800	27
ABS PIPE	FLOOR	150MM THICK CONCRETE	INTUCOLLAR	/120/120	90MM DIA PIPE	35256800	28
PVC PIPE	FLOOR	150MM THICK CONCRETE	INTUCOLLAR GV	/180/180	100MM DIA PIPE	FAR 4035	G
PVC PIPE	FLOOR	150MM THICK CONCRETE	INTUCOLLAR	/120/120	160MM DIA PIPE	35256800	29-32
PVC PIPE	FLOOR	150MM THICK CONCRETE	INTUCOMPOUND / INTUSTRAP	/240/180	160MM DIA PIPE	35256800	33-36
PPR PIPE	FLOOR	150MM THICK CONCRETE	INTUCOMPOUND / INTUSLEEVE	/240/180	90MM DIA PIPE	35256800	37
HDPE PIPE	FLOOR	150MM THICK CONCRETE	INTUCOMPOUND / INTUSLEEVE	/240/180	82MM DIA PIPE	35256800	38
PVC PIPE	FLOOR	150MM THICK CONCRETE	INTUCOMPOUND / INTUSLEEVE	/240/180	160MM DIA PIPE	35256800	39-42
HDPE PIPE	FLOOR	150MM THICK CONCRETE	INTUCOMPOUND / INTUSLEEVE	/240/240	82MM DIA PIPE	35084000.2	22
PVC PIPE	FLOOR	150MM THICK CONCRETE	INTUCOMPOUND / INTUSLEEVE	/240/240	160MM DIA PIPE	35084000.2	23
PVC PIPE	FLOOR	150MM THICK CONCRETE	INTUBATT (DOUBLE LAYER) / INTUSTRAP / INTUMASTIC	/60/60	110MM DIA PIPE	35319300	10
PVC PIPE	FLOOR	170MM THICK CONCRETE	INTUCOLLAR GV	/240/240	100MM DIA PIPE	FAR 4035	G
PVC PIPE	FLOOR	175MM THICK CONCRETE	INTUCOMPOUND / INTUSTRAP	/240/240	160MM DIA PIPE	35256800	33-36
PPR PIPE	FLOOR	175MM THICK CONCRETE	INTUCOMPOUND / INTUSLEEVE	/240/240	90MM DIA PIPE	35256800	37
HDPE PIPE	FLOOR	175MM THICK CONCRETE	INTUCOMPOUND / INTUSLEEVE	/240/240	82MM DIA PIPE	35256800	38
PVC PIPE	FLOOR	175MM THICK CONCRETE	INTUCOMPOUND / INTUSLEEVE	/240/240	160MM DIA PIPE	35256800	39-42
PVC PIPE / 25MM THICK ARMAFLEX	FLOOR	150MM THICK CONCRETE FLOOR	INTUCOLLAR	/120/120	110MM DIA PIPE	35256800	44
PVC PIPE / 30MM THICK ARMAFLEX	FLOOR	150MM THICK CONCRETE FLOOR	INTUCOLLAR	/120/120	21.5MM DIA PIPE	35256800	43
POLYETHYLENE PIPE / 55MM FIBREGLASS	FLOOR	150MM THICK CONCRETE FLOOR	INTUSTRAP	/120/120	15MM DIA PIPE	35256800	45

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report No.	ID/Ref
ELECTRICAL PENETRATION SERVICES							
SINGLE COMMS CABLE	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	SINGLE LAYER INTUBATT - CLOSED CAVITY -	/120/90	1 X 15MM DIA CABLE	340885000.9	TABLE 4
TWO X 5 CORE CABLES	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	SINGLE LAYER INTUBATT - CLOSED CAVITY -	/120/90	2 X 15MM DIA CABLES	340885000.9	TABLE 4
SINGLE ARMOURED CABLE	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	SINGLE LAYER INTUBATT - CLOSED CAVITY -	/120/90	1 X 25MM DIA	340885000.9	TABLE 4
CABLE BUNDLE - MIXED CABLES	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	SINGLE LAYER INTUBATT - CLOSED CAVITY - ROCKWOOL SLEEVE	/120/60 (MAX)	13 X CABLES - MIX DIA	340885000.9	TABLE 4
BUSWAY / BUSBARS	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC	/240/0	VARIOUS TYPES	340885000.9	TABLE 2
BUSWAY / BUSBARS	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC / PENOWRAP	240/240 (MAX)	VARIOUS TYPES	340885000.9	TABLE 3
CABLE TRAY OR CABLE BUNDLE	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC / PENOWRAP	/120/120 (MAX)	D1 / D2 CONFIGERATION	340885000.9	V1 / V2
CABLE TRAY OR CABLE BUNDLE	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC / PENOWRAP	/240/180	D1 / D2 CONFIGERATION	340885000.9	V3 / V4
CABLE TRAY OR CABLE BUNDLE	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC / PENOWRAP	/120/120	D1 / D2 CONFIGERATION	340885000.9	V5 / V6
CABLE TRAY OR CABLE BUNDLE	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC / PENOWRAP	/240/180	D1 / D2 CONFIGERATION	340885000.9	V7 / V8
COAX CABLE BUNDLE	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC / PENOWRAP	/120/120	4 X 28MM DIA BUNDLE	340885000.9	V9
COAX CABLE BUNDLE	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC / PENOWRAP	/240/180 (MAX)	4 X 28MM DIA BUNDLE	340885000.9	V10
CABLE BUNDLE	WALL	120MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUMASTIC HP	/60/60	4 CABLES	34084000.2	27
CABLE BUNDLE	WALL	120MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUBATT	/60/60	4 CABLES	34084000.2	24
CABLE CONDUIT	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUMASTIC HP	/120/120	8 X TPS CABLES	340885000.9	V60
CABLE TRAY	WALL	120MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUMASTIC HP	/60/60	4X21MM DIA & 1X23MM DIA	34084000.2	28
CABLE - SINGLE	WALL	120MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUMASTIC HP	/60/60	1 X COAX CABLE	34084000.2	26
CABLE BUNCH	WALL	116MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUMASTIC HP	/90/30	5 X TPS CABLES	51028300.1	H
ELECTRICAL SOCKET BOX	WALL	116MM THICK WALL - GIB / MASONRY / CONCRETE WALL	RYANFIRE PUTTY PAD	/90/60	TESTED BOTH SIDES WALL	51028300.1	A / B
ELECTRICAL SOCKET BOX	WALL	120MM THICK WALL - GIB / MASONRY / CONCRETE WALL	ELECTROPAD	/60/60	TESTED BOTH SIDES WALL	34084000.2	29/30

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ELECTRICAL PENETRATION SERVICES							
CABLE TRAY	WALL	120MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC	/60/60	4X21MM DIA & 1X23MM DIA	34084000.2	25
CABLE BUNDLE - OPTICAL	WALL	130MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC	/60/60	21 CABLES	34084000.2	63
CABLE BUNDLE - OPTICAL	WALL	130MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC	/60/60	12 CABLES	34084000.2	64
CABLE BUNDLES - OPTICAL / POWER	WALL	90MM THICK WALL - GIB / MASONRY / CONCRETE / 51MM THICK SPEEDWALL	FR BLOCK / INTUMASTIC HP	/60/60	VARIOUS TYPES	FCO - 3228	SP VARIOUS
CABLE TRAY	WALL	90MM THICK WALL - GIB / MASONRY / CONCRETE / 51MM THICK SPEEDWALL	FR BLOCK / INTUMASTIC HP	/60/60	100MM CABLE TRAY	FCO - 3228	SP25
CABLE CONDUIT - 26MM DIA	WALL	90MM THICK WALL - GIB / MASONRY / CONCRETE / 51MM THICK SPEEDWALL	FR BLOCK / INTUMASTIC HP	/60/60	6 CABLES	FCO - 3228	SP5
CABLE BUNDLE - OPTICAL	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC	/120/120	21 CABLES	340885000.9	V11
CABLE BUNDLE - OPTICAL	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC	/120/120	12 CABLES	340885000.9	V12
CABLE BUNDLE	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC	/120/120	21 CABLES	340885000.9	V13
CABLE BUNDLE - TPS/ALARM	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC / INTUMASTIC HP	/180/120	12 CABLES	340885000.9	V49
CABLE CONDUIT- 55MM DIA	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC	/120/120	4 CABLES	340885000.9	V14 / V15
CABLE TRAY	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC	/120/120	3 CABLES	340885000.9	V16
CABLE - SINGLE	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC	/120/120	10MM DIA CABLE	340885000.9	V19
CABLE - SINGLE	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC	/120/120	8MM DIA FIREFIX GOLD	340885000.9	V20
CABLE BUNDLE	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC	/120/120	6 X 13MM DIA TPS CABLES	340885000.9	V21
CABLE BUNDLE	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC	/120/120	3 X 8MM FIREFIX CABLES	340885000.9	V22
CABLE - SINGLE	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC	/120/120	1 CABLE	340885000.9	V23
CABLE - SINGLE	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC	/120/120	1 CABLE	340885000.9	V24
CABLE BUNDLE	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC	/120/120	12 TPS CABLES	340885000.9	V25
CABLE CONDUITS	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC / INTUMASTIC HP	/240/120	2 X 27MM CONDUITS - 31 CABLES	340885000.9	V70

ELECTRICAL PENETRATION SERVICES

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report No.	ID/Ref
CABLE BUNDLE	WALL	116MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUMASTIC HP	/120/120	6 X TPS / ALARM CABLES	23671.4	11
ELECTRICAL SOCKET BOX	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	ELECTROPAD	/120/120	TESTED BOTH SIDES WALL	35256800	46/47
CABLE CONDUIT - 82MM DIA	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUCOLLAR	/120/120	65 CABLES	35256800	48
CABLE CONDUIT - 25MM DIA	WALL	128MM THICK GIB WALL / 100MM THICK MASONRY / CONCRETE WALL	INTUMASTIC HP	/120/120	8 X TPS CABLES	23671.4	45
CABLE CONDUITS X2 X 63MM DIA PLUS BUNDLE	WALL	142MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUMASTIC HP	/120/30	2 CABLES PLUS CABLE BUNDLE	52208000.1	20
CABLE LADDER / CABLE TRAY / BUNDLE	WALL	142MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUMASTIC HP	/120/90	8 CABLES	52208000.1	19
CABLE LADDER / CABLE TRAY / BUNDLE	WALL	142MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUMASTIC HP	/120/90	36 CABLES PLUS 40MM DIA BUNDLE	52208000.1	17
CABLE TRAY	WALL	142MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUMASTIC HP	/120/90	5 X POWER CABLES	52208000.1	18
CABLE BUNDLE	WALL	142MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC	/120/120	70MM DIA BUNDLE	52208000.1	10
CABLE CONDUIT - 82MM DIA	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUSTRAP / INTUMASTIC	/120/120	65 CABLES	35256800	49
CABLE CONDUITS - ONLY HAVE TREATED	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUSTRAP	/120/120	12 CABLES	35319300	14
CABLE CONDUITS - TOUCHING	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUSTRAP	/120/120	12 CABLES	35319300	15
CABLE CONDUIT - 55MM DIA	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUMASTIC HP	/120/120	20MM DIA BUNDLE	35319300	16
CABLE CONDUIT - 55MM DIA	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUSTRAP	/60/60	6 X TPS / ALARM CABLES	35319300	17
CABLE CONDUIT - 55MM DIA	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUSTRAP	/60/60	7 X TPS CABLES	35319300	18
CABLE TRAY	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC	/120/120	16 CABLES	35256800	50
CABLE TRAY OR CABLE BUNDLE	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC	/120/120	80MM DIA + 61MM DIA + CABLE BUNDLE	35319300	19
CABLE TRAY OR CABLE BUNDLE	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC / INTUMASTIC HP	/120/120	80MM DIA + 61MM DIA + CABLE BUNDLE	35319300	20
CABLE BUNDLES - 3 NUMBER	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC	/60/60	30MM DIA + 30MM DIA + 40MM DIA BUNDLE	35319300	21

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report No.	ID/Ref
ELECTRICAL PENETRATION SERVICES							
CABLE BUNDLE	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC	/120/120	20 DATA CABLES + 5 TPS	35319300	22
CABLE BUNDLE	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC / INTUMASTIC HP	/120/120	6 CABLES	35319300	23
CABLE BUNDLE X 2	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC	/60/60	30MM DIA COAX + 35MM DIA FIRE ALARM	35319300	24
CABLE - SINGLE	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC	/120/120	1 X TPS CABLE	35319300	25
CABLE - SINGLE	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC	/120/120	1 X OPTICAL CABLE	35319300	26
CABLE - SINGLE	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC	/120/120	1 X COAX CABLE	35319300	27
CABLE - SINGLE	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC	/120/90	1 X 21MM DIA CABLE	35319300	28
CABLE BUNDLE	WALL	130MM THICK GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC	/120/120	12 X OPTICAL CABLES	35084000.2	64
CABLE BUNDLE	WALL	130MM THICK GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC	/120/120	21 CABLES	35084000.2	63
CABLE TRANSIT	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	FIRETHERM CABLE TRANSIT	/120/60	140 CABLES	35319300	30
CABLE TRANSIT - CIRCULAR	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	FIRETHERM CABLE TRANSIT - 200MM DIA	/120/120	16 X CONDUITS EACH FILLED WITH CABLES	35319300	31
CABLE TRANSIT	WALL	130MM THICK GIB / MASONRY / CONCRETE WALL	FIRETHERM CABLE TRANSIT	/120/120	CABLE TRAY / VARIOUS CABLES	35084000.2	41
CABLE TRANSIT	WALL	130MM THICK GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC / FIRETHERM CABLE TRANSIT	/120/90	19 CABLES + CABLE CONDUIT + 2XPVC PIPES	35084000.2	40
CABLE LADDER	WALL	128MM THICK GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC / SLEEVE	/120/120	D1 & D2 CABLE CONFIGERATION	35084000.2	42/43
CABLE TRUNKING	WALL	100MM THICK GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC / INTUPILLOW PRO	/120/120	CABLES - 10% FILL	35084000.2	65
CABLE TRUNKING	WALL	100MM THICK GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC / INTUPILLOW PRO	/120/120	CABLES - 75% FILL	35084000.2	66
CABLE TRUNKING	WALL	100MM THICK GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC / INTUPILLOW PRO	/120/120	CABLES - 45% FILL	35084000.2	67
CABLE TRUNKING	WALL	100MM THICK GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC / INTUPILLOW PRO	/120/120	CABLES - 75% FILL	35084000.2	68
CABLE CONDUIT - 22MM DIA	WALL	130MM THICK GIB / MASONRY / CONCRETE WALL	INTUMASTIC HP	/120/120	2 CABLES	35084000.2	33
CABLE CONDUIT - 55MM DIA	WALL	130MM THICK GIB / MASONRY / CONCRETE WALL	INTUMASTIC HP	/120/120	4 X CABLES	35084000.2	34

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report No.	ID/Ref
ELECTRICAL PENETRATION SERVICES							
CABLE TRAY / LADDER	WALL	130MM THICK GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC	/120/120	4 CABLE TRAYS - 48 CABLES + 100MM DIA BUNDLE	35084000.2	35
CABLE LADDER	WALL	128MM THICK GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC / SLEEVE	/240/180	D1 & D2 CABLE CONFIGERATION	35084000.2	42/43
CABLE TRAY OR CABLE BUNDLE	WALL	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC HP	/120/120	D1 & D2 CABLE CONFIGERATION	23671.4	12 & 13
CABLE BUNDLE	WALL	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC HP	/120/120	12 TPS OR ALARM CABLES	23671.4	9
CABLE TRAY	WALL	150MM THICK MASONRY / CONCRETE WALL	INTUCOMPOUND	/180/60	52MM DIA CABLE	35084000.2	69
CABLE TRAY	WALL	150MM THICK MASONRY / CONCRETE WALL	INTUCOMPOUND	/240/60	2 X 27MM DIA CABLES	35084000.2	70
CABLE TRAY	WALL	150MM THICK MASONRY / CONCRETE WALL	INTUCOMPOUND	/120/90	1 X 80MM DIA CABLE	35084000.2	71
CABLE TRAY	WALL	150MM THICK MASONRY / CONCRETE WALL	INTUCOMPOUND	/240/90	1 X 62MM DIA CABLE	35084000.2	72
CABLE TRAY	WALL	150MM THICK MASONRY / CONCRETE WALL	INTUCOMPOUND	/180/120	10 X 14MM DIA CABLES	35084000.2	73
CABLE TRAY	WALL	150MM THICK MASONRY / CONCRETE WALL	INTUCOMPOUND	/90/90	1 X 100MM DIA CABLE BUNDLE	35084000.2	82
CABLE TRAY	WALL	150MM THICK MASONRY / CONCRETE WALL	INTUCOMPOUND	/240/120	10 X 13MM DIA CABLES	35084000.2	75
CABLE TRAY	WALL	150MM THICK MASONRY / CONCRETE WALL	INTUCOMPOUND	/180/90	10 CABLES	35084000.2	74
CABLE TRAY	WALL	150MM THICK MASONRY / CONCRETE WALL	INTUCOMPOUND	/240/120	2 X 21MM DIA CABLES	35084000.2	76
CABLE TRAY	WALL	150MM THICK MASONRY / CONCRETE WALL	INTUCOMPOUND	/240/90	3 X 61MM DIA CABLES	35084000.2	78
CABLE BUNDLE	CEILINGS	26MM THICK GIB	INTUMASTIC HP	/60/30	6 X TPS CABLES	35256800	51
CABLE BUNDLE	CEILINGS	26MM THICK GIB	INTUMASTIC HP	/60/30	12 CABLES	35256800	52
DOWNLIGHTER COVERS - VENTILLATED	CEILINGS	CEILING THICKNESS OF THE REQUIRED FRL	RYANFIRE VENTILLATED DOWNLIGHTER COVERS	/60/60	150MM / 200MM / 250MM / 320MM / 420MM DIA	FAR 4823	
CABLE TRAY OR CABLE BUNDLE	FLOOR	100MM THICK CONCRETE / MASONRY / HEBEL	INTUBATT / INTUMASTIC / PENOWRAP	/120/120	D1 CABLE CONFIGERATION	23671.4	19
CABLE TRAY OR CABLE BUNDLE	FLOOR	100MM THICK CONCRETE / MASONRY / HEBEL	INTUBATT / INTUMASTIC / PENOWRAP	/120/120	D2 CABLE CONFIGERATION	23671.4	20
CABLE BUNDLE	FLOOR	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC HP	/120/120	12 TPS / ALARM CABLES	23671.4	16

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report No.	ID/Ref
ELECTRICAL PENETRATION SERVICES							
CABLE BUNDLE	FLOOR	100MM THICK CONCRETE / MASONRY / HEBEL	INTUMASTIC HP	/120/120	6 TPS / ALARMS CABLES	23671.4	18
CABLE TRAY / LADDER	FLOOR	120MM THICK CONCRETE/MASORY FLOOR	INTUBATT / INTUMASTIC / SLEEVE	/240/180	60 X COMMS CABLES	2600703.2A	H
CABLE TRAY / LADDER	FLOOR	120MM THICK CONCRETE/MASORY FLOOR	INTUBATT / INTUMASTIC / SLEEVE	/180/180	13 X MIXED CABLES	2600703.2A	I
CABLE TRAY / LADDER	FLOOR	120MM THICK CONCRETE/MASORY FLOOR	INTUBATT / INTUMASTIC / SLEEVE	/180/180	D1 CABLE CONFIGERATION	35084000.2	45
CABLE TRAY / LADDER	FLOOR	120MM THICK CONCRETE/MASORY FLOOR	INTUBATT / INTUMASTIC / SLEEVE	/240/180	D2 CABLE CONFIGERATION	35084000.2	44
CABLE BUNDLE	FLOOR	120MM THICK CONCRETE/MASORY FLOOR	INTUBATT / INTUMASTIC	/120/120	21 OPTICAL CABLES	35084000.2	31
CABLE BUNDLE	FLOOR	120MM THICK CONCRETE/MASORY FLOOR	INTUBATT / INTUMASTIC	/120/120	12 OPTICAL CABLES	35084000.2	32
CABLE BUNDLE	FLOOR	COMPOSITE FLOORING - 65MM THICK CONCRETE	INTUBATT / INTUMASTIC	/60/30	75 CABLES	46812300.1	5
CABLE BUNDLE	FLOOR	COMPOSITE FLOORING - 65MM THICK CONCRETE	INTUMASTIC HP	/120/60	75 CABLES	46812800.1	5
CABLE TRAY / LADDER	FLOOR	COMPOSITE FLOORING - 65MM THICK CONCRETE	INTUBATT / INTUMASTIC	/60/30	13 CABLES	46812800.1	4
CABLE TRAY OR CABLE BUNDLE	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC / PENOWRAP	/120/120	D1 CABLE CONFIGERATION	340885000.9	H1
CABLE TRAY OR CABLE BUNDLE	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC / PENOWRAP	/120/120	D2 CABLE CONFIGERATION	340885000.9	H2
CABLE TRAY OR CABLE BUNDLE	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC / PENOWRAP	/180/180	D1 CABLE CONFIGERATION	340885000.9	H3
CABLE TRAY OR CABLE BUNDLE	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC / PENOWRAP	/180/180	D2 CABLE CONFIGERATION	340885000.9	H4
CABLE TRAY OR CABLE BUNDLE	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC / PENOWRAP	/120/120	D1 CABLE CONFIGERATION	340885000.9	H5
CABLE TRAY OR CABLE BUNDLE	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC / PENOWRAP	/120/120	D2 CABLE CONFIGERATION	340885000.9	H6
CABLE TRAY OR CABLE BUNDLE	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC / PENOWRAP	/180/180	D1 CABLE CONFIGERATION	340885000.9	H7
CABLE TRAY OR CABLE BUNDLE	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC / PENOWRAP	/180/180	D2 CABLE CONFIGERATION	340885000.9	H8
CABLE BUNDLE	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC / PENOWRAP	/120/120	4 X 28MM DIA COAX CABLES	340885000.9	H9
CABLE BUNDLE	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC / PENOWRAP	/180/180	4 X 28MM DIA COAX CABLES	340885000.9	H10
CABLE BUNDLE	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC / PENOWRAP	/120/120	21 X OPTICAL CABLES	340885000.9	H11
CABLE BUNDLE	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC / PENOWRAP	/120/120	12 X OPTICAL CABLES	340885000.9	H12

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ELECTRICAL PENETRATION SERVICES							
CABLE CONDUIT - 50MM DIA	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC / INTUMASTIC HP	/120/120	2 X 23MM DIA CABLES	340885000.9	H13
CABLE CONDUIT - 50MM DIA	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC / INTUMASTIC HP	/120/120	6 X TPS CABLES	340885000.9	H14
CABLE BUNDLE	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC / INTUMASTIC HP	/180/120	12 X TPS CABLES	340885000.9	H30
CABLE CONDUIT - 25MM DIA	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC / INTUMASTIC HP	/120/120	8 X TPS CABLES	340885000.9	H41
CONDUIT BUNDLE - 3 X 27MM DIA	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC / INTUMASTIC HP	/240/120	24 DATA CABLES + 7 COAX CABLES	340885000.9	H51
BUSWAY / BUSBARS (VARIOUS TYPES)	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC	/240/0	VARIOUS TYPES - REFER TO REPORT	340885000.9	TABLE 7
BUSWAY / BUSBARS (VARIOUS TYPES)	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC / PENOWRAP	/240/240	VARIOUS TYPES - REFER TO REPORT	340885000.9	TABLE 8/8A/8B
CABLE BUNDLE	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUMASTIC HP	/90/30	100MM DIA CABLE BUNDLE	52208000.1	1
CABLE/CABLE BUNDLES	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUMASTIC HP	/120/120	18MM DIA / 20MM DIA / 14MM DIA	52208000.1	2+3+4
CABLE BUNDLE	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUMASTIC HP	/120/120	3 CABLES	52208000.1	5
CABLE TRAY / LADDERS	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUMASTIC HP	/120/90 (MAX)	1X52MM DIA + 2X27MM DIA + 1X80MM DIA	52208000.1	6
CABLE TRAY / LADDERS	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUMASTIC HP	/120/30	1 X 60MM DIA	52208000.1	7
CABLE TRAY / LADDERS	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUMASTIC HP	/120/90 (MAX)	41 X MIXED DIA CABLES	52208000.1	8
CABLE TRAY / LADDERS	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUMASTIC HP	/120/30	1X17MM DIA + 1X23MM DIA + 100MM DIA BUNDLE	52208000.1	9
CABLE BUNDLE	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUBATT / INTUMASTIC (SINGLE LAYER)	/60/30	7 MIXED CABLES	35256800	53
CABLE CONDUIT - 50MM DIA	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUBATT / INTUMASTIC / INTUSTRAP - SINGLE LAYER	/240/180	8 X TPS CABLES	35319300	33
CABLE TRAY	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUBATT / INTUMASTIC	/120/30	7 MIXED CABLES	35256800	54
CABLE TRAY	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUCOMPOUND	/240/60	1 X 52MM DIA CABLE	35084000.2	83
CABLE TRAY	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUCOMPOUND	/240/120	2 X 27MM DIA CABLES	35084000.2	84
CABLE TRAY	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUCOMPOUND	/240/60	1 X 80MM DIA CABLE	35084000.2	85
CABLE TRAY	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUCOMPOUND	/240/120	20 X 14MM DIA CABLES	35084000.2	88/89
CABLE TRAY	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUCOMPOUND	/240/60	2X21MM DIA CABLES	35084000.2	90
CABLE TRAY	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUCOMPOUND	/180/120	3 X 61MM DIA CABLES	35084000.2	92

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ELECTRICAL PENETRATION SERVICES							
CABLE TRAY / LADDER	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUCOMPOUND	/240/240	1 X 17MM DIA CABLE	35084000.2	94
CABLE TRAY	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUCOMPOUND	/120/120	100MM DIA CABLE BUNDLE	35084000.2	96
CABLE TRANSIT	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	CABLE TRANSIT / INTUMASTIC HP	/120/30	36 CABLES	35084000.2	38
CABLE CONDUIT - 50MM DIA	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUMASTIC HP	/120/120	3 - 6 CABLES	35084000.2	36 - 37
CABLE BUNDLE	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUMASTIC HP	/120/120	80MM DIA BUNDLE	352568000	57
CABLE CONDUIT - 50MM DIA	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUBATT / INTUMASTIC / INTUSTRAP	/240/180	15 CABLES	35319300	34
CABLE BUNDLES	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUBATT / INTUMASTIC	/180/120	10 X DATA + 5 X OPTICAL + 3 X ALARM CABLES	35319300	35
CABLE BUNDLES	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUBATT / INTUMASTIC	/60/60	30MM DIA + 50MM DIA CABLE BUNDLE	35319300	36
CABLE BUNDLE	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUCOLLAR	/120/120	61 CABLES	35256800	55
CABLE TRAY / LADDER	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUCOMPOUND / INTUBATT / INTUMASTIC	/240/120	1 X 52MM DIA/2 X 27MM DIA/1 X 80MM DIA CABLES	35084000.2	62
CABLE TRAY / LADDER	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUCOMPOUND / INTUBATT / INTUMASTIC	/240/240	1 X 58MM DIA CABLE	35084000.2	61
CABLE TRAY / LADDER	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUCOMPOUND / INTUBATT / INTUMASTIC	/240/120	35 X MIXED SIZE CABLES	35084000.2	59
CABLE TRAY / LADDER	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUCOMPOUND / INTUBATT / INTUMASTIC	/240/120	1X100MM DIA BUNDLE + 1X17MM DIA + 1X23MM DIA	35084000.2	60
CABLE TRAY / LADDER	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUCOMPOUND	/180/60	3 X 47MM DIA CABLES	35084000.2	91
CABLE TRAY / LADDER	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUBATT / INTUMASTIC	/120/120	1X300MM 1X200MM 1X500MM WIDE CABLE LADDERS/TRAYS	35084000.2	39
CABLE TRAY / LADDER	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUCOMPOUND / INTUBATT / INTUMASTIC	/240/120	35 CABLES - RANGING FROM 14MM - 47MM DIA	35256800	58
CABLE BUNDLE	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUMASTIC HP	/120/120	80MM DIA BUNDLE	352568000	56
CABLE CONDUIT - 55MM DIA	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUMASTIC HP	/240/120	24 MIXED CABLES	35319300	32
CABLE CONDUIT - 55MM DIA	FLOOR	175MM THICK CONCRETE / MASONRY FLOOR	INTUBATT / INTUMASTIC (SINGLE LAYER)	/240/240	8 X TPS CABLES	35319300	33
BLANK SEAL	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC	/120/120	300MM X 310MM VOID	35319300	39
BLANK SEAL	WALL	150MM THICK CONCRETE WALL	INTUBATT / INTUMASTIC	/240/240	1500 X 1500MM VOID	35319300	40
BLANK SEAL	WALL	110MM THICK WALL - GIB/ MASONRY / CONCRETE / HEBEL	INTUBATT / INTUMASTIC	/120/120	3000 X 1200MM VOID	27186.25	V 2 / V3
BLANK SEAL	WALL	150MM THICK MASONRY / CONCRETE / HEBEL WALL	INTUBATT / INTUMASTIC	/240/240	1200 X 1200 VOID	27186.25	V1
BLANK SEAL	WALL	51MM / 64MM / 78MM THICK SPEED WALL	INTUBATT / INTUMASTIC	/120/120 (MAX)	2400 X 1000 VOID	27186.25	V4
BLANK SEAL	WALL	110MM THICK GIB WALL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC	/120/120	1000X1000 OR 600MM DIA CORE DRILLED HOLE	27186.25	V5

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SEISMIC/CONSTRUCTION JOINTS							
BLANK SEAL	WALL	MASONRY / CONCRETE / HEBEL WALL THICKNESS OF REQUIRED FRL	INTUBATT / INTUMASTIC	/120/120	1000X1000 OR 600MM DIA CORE DRILLED HOLE	27186.25	V5
BLANK SEAL	WALL	110MM THICK GIB WALL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC	/120/120	1000X1000 OR 600MM DIA CORE DRILLED HOLE	27186.25	V6
BLANK SEAL	WALL	MASONRY / CONCRETE / HEBEL WALL THICKNESS OF REQUIRED FRL	INTUBATT / INTUMASTIC	/120/120	1000X1000 OR 600MM DIA CORE DRILLED HOLE	27186.25	V6
BLANK SEAL	WALL	110MM THICK GIB WALL	INTUBATT / INTUMASTIC - SINGLE LAYER	/120/120	1200 X 600 VOID	27186.25	V7
BLANK SEAL	WALL	MASONRY / CONCRETE / HEBEL WALL THICKNESS OF REQUIRED FRL	INTUBATT / INTUMASTIC - SINGLE LAYER	/120/120	1200 X 600 VOID	27186.25	V7
BLANK SEAL	WALL	110MM THICK GIB WALL	INTUBATT / INTUMASTIC - SINGLE LAYER	/120/120	1200 X 600 VOID	27186.25	V8
BLANK SEAL	WALL	MASONRY / CONCRETE / HEBEL WALL THICKNESS OF REQUIRED FRL	INTUBATT / INTUMASTIC - SINGLE LAYER	/120/120	1200 X 600 VOID	27186.25	V8
BLANK SEAL	WALL	110MM THICK GIB WALL	INTUBATT / INTUMASTIC - SINGLE LAYER	/120/120	1000 X 400 VOID	27186.25	V9
BLANK SEAL	WALL	MASONRY / CONCRETE / HEBEL WALL THICKNESS OF REQUIRED FRL	INTUBATT / INTUMASTIC - SINGLE LAYER	/120/120	1000 X 400 VOID	27186.25	V9
BLANK SEAL	WALL	110MM THICK GIB WALL	INTUBATT / INTUMASTIC - SINGLE LAYER	/120/120	1000 X 400 VOID	27186.25	V10
BLANK SEAL	WALL	MASONRY / CONCRETE / HEBEL WALL THICKNESS OF REQUIRED FRL	INTUBATT / INTUMASTIC - SINGLE LAYER	/120/120	1000 X 400 VOID	27186.25	V10
BLANK SEAL	WALL	110MM THICK GIB WALL	INTUBATT / INTUMASTIC	/120/120	1000 X 400 VOID	27186.25	V11 / V12
BLANK SEAL	WALL	MASONRY / CONCRETE / HEBEL WALL THICKNESS OF REQUIRED FRL	INTUBATT / INTUMASTIC	/120/120	1000 X 400 VOID	27186.25	V11 / V12
BLANK SEAL	WALL	77MM THICK SPEED WALL	INTUBATT / INTUMASTIC - SINGLE LAYER	/120/120	1200X600 VOID	27186.25	V13
BLANK SEAL	WALL	105MM THICK CROSS LAMINATED TIMBER (CLT)	INTUBATT / INTUMASTIC	/90/90	1200 X 600 VOID	27186.25	V35
LINEAR GAP SEAL	WALL	120MM THICK GIB / MASONRY / CONCRETE WALL	INTUMASTIC	/60/0	10X10MM GAP	35084000.2	46
LINEAR GAP SEAL	WALL	110MM THICK GIB WALL	INTUBATT / INTUMASTIC	/240/240	600MM WIDE X INFINITE LENGTH	27186.25	V14 / V15
LINEAR GAP SEAL	WALL	MASONRY / CONCRETE / HEBEL WALL THICKNESS OF REQUIRED FRL	INTUBATT / INTUMASTIC	/240/240	600MM WIDE X INFINITE LENGTH	27186.25	V14 / V15
LINEAR GAP SEAL	WALL	110MM THICK GIB WALL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC	/120/120	400MM WIDE X INFINITE LENGTH	27186.25	V16
LINEAR GAP SEAL	WALL	MASONRY / CONCRETE / HEBEL WALL THICKNESS OF REQUIRED FRL	INTUBATT / INTUMASTIC	/120/120	400MM WIDE X INFINITE LENGTH	27186.25	V16
LINEAR GAP SEAL	WALL	110MM THICK GIB WALL	INTUBATT / INTUMASTIC	/120/120	1200MM WIDE X INFINITE LENGTH	27186.25	V17 / V18
LINEAR GAP SEAL	WALL	MASONRY / CONCRETE / HEBEL WALL THICKNESS OF REQUIRED FRL	INTUBATT / INTUMASTIC	/120/120	1200MM WIDE X INFINITE LENGTH	27186.25	V17 / V18
LINEAR GAP SEAL	WALL	110MM THICK GIB WALL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC	/120/120	1000MM WIDE X INFINITE LENGTH	27186.25	V19 / V20 / V21

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report No.	ID/Ref
SEISMIC/CONSTRUCTION JOINTS							
LINEAR GAP SEAL	WALL	MASONRY / CONCRETE / HEBEL WALL THICKNESS OF REQUIRED FRL	INTUBATT / INTUMASTIC	/120/120	1000MM WIDE X INFINITE LENGTH	27186.25	V19 / V20 / V21
LINEAR GAP SEAL	WALL	110MM THICK GIB WALL	INTUBATT / INTUMASTIC - SINGLE LAYER	/120/120	600MM WIDE X INFINITE LENGTH	27186.25	V22 / V23 / V24
LINEAR GAP SEAL	WALL	MASONRY / CONCRETE / HEBEL WALL THICKNESS OF REQUIRED FRL	INTUBATT / INTUMASTIC - SINGLE LAYER	/120/120	600MM WIDE X INFINITE LENGTH	27186.25	V22 / V23 / V24
LINEAR GAP SEAL	WALL	110MM THICK GIB WALL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC	/120/120	400MM WIDE X INFINITE LENGTH	27186.25	V25 / V26
LINEAR GAP SEAL	WALL	MASONRY / CONCRETE / HEBEL WALL THICKNESS OF REQUIRED FRL	INTUBATT / INTUMASTIC	/120/120	400MM WIDE X INFINITE LENGTH	27186.25	V25 / V26
LINEAR GAP SEAL	WALL	110MM THICK GIB WALL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC	/120/120	601 - 1200MM WIDE X INFINITE LENGTH	27186.25	V27
LINEAR GAP SEAL	WALL	MASONRY / CONCRETE / HEBEL WALL THICKNESS OF REQUIRED FRL	INTUBATT / INTUMASTIC	/120/120	601 - 1200MM WIDE X INFINITE LENGTH	27186.25	V27
LINEAR GAP SEAL	WALL	SEALING BETWEEN FLOOR AND ABOVE STRUCTURAL STEEL BEAMS	INTUBATT / INTUMASTIC - SINGLE LAYER	/120/120	600MM WIDE X 4000MM LONG VOID	27186.25	V28
LINEAR GAP SEAL	WALL	78MM THICK SPEED WALL	INTUBATT / INTUMASTIC - SINGLE LAYER	/120/120	600MM WIDE X INFINITE LENGTH	27186.25	V29
LINEAR GAP SEAL	WALL	150MM CONCRETE/AERATED/MASONRY WALL	INTUMASTIC	/180/180	35MM GAP	35084000.2	49
LINEAR GAP SEAL	WALL	175MM THICK AERATED BLOCK WALL	INTUMASTIC	/240/240	35MM GAP	35084000.2	49
LINEAR GAP SEAL	WALL	150MM THICK AERATED BLOCK WALL	INTUSIL	/180/180	35MM GAP	35084000.2	50
LINEAR GAP SEAL	WALL	175MM THICK AERATED BLOCK WALL	INTUSIL	/240/240	35MM GAP	35084000.2	50
LINEAR GAP SEAL	WALL	142MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUMASTIC HP	/120/120	25MM GAP	52208000.1	21
LINEAR GAP SEAL	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUMASTIC - BARE TIMBER FRAMING	/120/120	30MM GAP	35256800	60 / 61
LINEAR GAP SEAL	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUMASTIC	/120/120	40MM GAP	35319300	38
LINEAR GAP SEAL	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUSIL - BARE TIMBER FRAMING	/120/120	30MM GAP	35256800	62
LINEAR GAP SEAL	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUSIL	/120/120	40MM GAP	35319300	37
LINEAR GAP SEAL	WALL	150MM THICK CONCRETE WALL	INTUSPAN PRO	/30/30	150MM WIDE GAP	35084000.2	111
LINEAR GAP SEAL	WALL	150MM THICK CONCRETE WALL	INTUSPAN	/120/120	100MM WIDE GAP	35084000.1	53
HEAD OF WALL JOINT	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC	/120/120	300MM WIDE GAP	35256800	59
WALL - INTUBATT - MASTIC GLUED JOINTS	WALL	150MM THICK MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC	/240/240	1500 X 1500 VOID	35319300	40
TOP OF SERVICE SHAFT / RISER	WALL	GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC - FIXED TO FRAMING - FIXED AT 2 POINTS	120/120/120		27186.25	H36
TOP OF SERVICE SHAFT / RISER	WALL	GIB / MASONRY / CONCRETE WALL	INTUBATT / INTUMASTIC - FIXED TO FRAMING - FIXED AT 1 POINT	120/120/120		27186.25	H37

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report No.	ID/Ref
SEISMIC/CONSTRUCTION JOINTS							
BULK HEAD - FRAMED	WALL/ FLOOR	FLOOR THICKNESS OF REQUIRED FRL - WALL- GIB/ CONCRETE/SPEEDWALL	INTUBATT / INTUMASTIC / FRAMING	120 / 120 / 120	1200MM X 600MM OR 1200MM HIGH X INFINITE LENGTH	27186.25	H26/H28/H30
BULK HEAD - NON FRAMED - SHAFT/ENCLOSURE	WALL/ FLOOR	FLOOR THICKNESS OF REQUIRED FRL - WALL- GIB/ CONCRETE/SPEEDWALL	INTUBATT / INTUMASTIC - FIXED AT 2 POINTS	120/120/120	1200MM X 700MM X INFINTE LENGTH	27186.25	H31
VERTICAL RISERS	WALL	77MM SPEEDWALL / CONCRETE / HEBEL WALL THICKNESS OF REQUIRED FRL	INTUBATT / INTUMASTIC - FIXED TO FRAMING - FIXED AT 4 POINTS	120/120/120	700 X 1200 X 300MM VOID	27186.25	V34
VERTICAL RISERS	WALL	CONCRETE / MASONRY / HEBEL	INTUBATT / INTUMASTIC - FIXED AT PERIMETER - 4 SIDES	120/120/120	1200 X 1200 X 4M LONG VOID	27186.25	V30
VERTICAL RISERS	WALL	CONCRETE / MASONRY / HEBEL	INTUBATT / INTUMASTIC - FIXED AT PERIMETER - 3 SIDES	120/120/120	1200 X 1200 X 4M LONG VOID	27186.25	V31
VERTICAL RISERS	WALL	CONCRETE / MASONRY / HEBEL	INTUBATT / INTUMASTIC - FIXED AT PERIMETER - 2 SIDES	120/120/120	1200 X 1200 X 4M LONG VOID	27186.25	V32
VERTICAL RISERS	WALL	CONCRETE / MASONRY / HEBEL	INTUBATT / INTUMASTIC - FIXED BETWEEN TWO WALLS	120/120/120	1200 X 1200 X 4M LONG VOID	27186.25	V33
HORIZONTAL LINEAR GAP SEAL	WALL	105MM THICK CROSS LAMINATED TIMBER (CLT)	INTUBATT / INTUMASTIC - FRICTION FIT	/90/90	600MM WIDE X INFINITE LENGTH	27186.25	V37
VERTICAL RISERS	WALL	105MM THICK CROSS LAMINATED TIMBER (CLT)	INTUBATT / INTUMASTIC - FRICTION FIT	/90/90	600MM WIDE X INFINITE LENGTH	27186.25	V36
INTUBATT CEILING	CEILING	INTUBATT CEILING FIXED TO TIMBER FRAME	INTUBATT / INTUMASTIC - DOUBLE LAYER	120/120/120	FULL SCALE TEST	27186.25	H20/21/22/25
BULK HEAD - NON FRAMED	CEILING	GIB CEILING / TIMBER FLOOR	INTUBATT / INTUMASTIC - FIXED TO FRAMING	120/120/120	600MM WIDE X INFINITE LENGTH	27186.25	H23 / H24
BLANK SEAL	CEILING	GIB	INTUBATT / INTUMASTIC	/120/120 (MAX)		27186.25	H38 / H39
BLANK SEAL	FLOOR	CONCRETE / HEBEL FLOOR	INTUBATT / INTUMASTIC - DOUBLE LAYER - BOTH SITTING ABOVE FLOOR LEVEL	/240/240	1000 X 1000 OR 600MM DIA CORE HOLE	27186.25	H10
BLANK SEAL	FLOOR	CONCRETE / HEBEL FLOOR	INTUBATT / INTUMASTIC - DOUBLE LAYER - ONE LAYER PROUD OF FLOOR LEVEL	/240/240	600MM WIDTH - UPTO 2.4M2 AREA	27186.25	H9
BLANK SEAL	FLOOR	CONCRETE / HEBEL FLOOR	INTUBATT / INTUMASTIC - DOUBLE LAYER - ONE LAYER PROUD OF FLOOR LEVEL	/240/240	1000 X 1000 OR 600MM DIA CORE HOLE	27186.25	H6
BLANK SEAL	FLOOR	120MM CONCRETE / MASONRY FLOOR	INTUBATT / INTUMASTIC - SINGLE LAYER	/120/120	440MM WIDE X 4M LONG VOID	27186.25	H11
BLANK SEAL	FLOOR	120MM CONCRETE / MASONRY FLOOR	INTUBATT / INTUMASTIC	/120/120	600MM WIDE X UP TO 2.4M2 AREA	27186.25	H8
BLANK SEAL	FLOOR	120MM CONCRETE / MASONRY FLOOR	INTUBATT / INTUMASTIC	/120/120	1200 X 600 OR 600MM MAX CORE DRILL VOID	27186.25	H4

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report No.	ID/Ref
SEISMIC/CONSTRUCTION JOINTS							
BLANK SEAL	FLOOR	120MM CONCRETE / MASONRY FLOOR	INTUBATT / INTUMASTIC	/120/120	1200 X 1200 VOID	27186.25	H5
BLANK SEAL	FLOOR	120MM CONCRETE / MASONRY FLOOR	INTUBATT / INTUMASTIC	/120/120	4000X 600 VOID	27186.25	H7
BLANK SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUBATT / INTUMASTIC	/240/240	1200 X 1200 VOID	27186.25	H2 / H3
BLANK SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUBATT / INTUMASTIC	/240/240	1200 X 600 VOID	27186.25	H1
BLANK SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUCOMPOUND - 100MM THICK	/240/180	800 X 600MM VOID	35256800	68
BLANK SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUBATT / INTUMASTIC - SINGLE LAYER	/120/60	500 X 500MM VOID	35256800	64
BLANK SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUBATT / INTUMASTIC - DOUBLE LAYER - FITTED FROM BELOW - 50MM O/LAP	/120/120	500 X 500MM VOID	35256800	65
BLANK SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUBATT / INTUMASTIC - DOUBLE LAYER - WITHIN A GIB LINED OPENING	/120/120	400X450MM VOID	35319300	43
BLANK SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUBATT / INTUMASTIC - SINGLE LAYER - FIXED TO TIMBER FRAMING BELOW	/120/120	400 X 450MM VOID	35319300	42
BLANK SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUBATT / INTUMASTIC - SINGLE LAYER	/120/120	1000 X 400MM VOID	27186.25	H12 / H13 / H14
BLANK SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUBATT/INTUMASTIC - SINGLE LAYER - FIXED TO LOWER FLOOR SURFACE LEVEL	/120/120	1100 X 400MM VOID	35319300	41
BLANK SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUBATT / INTUMASTIC - FIXED TO TIMBER FRAME	/120/60	200MM WIDE VOID	35256800	66
LINEAR GAP SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUBATT / INTUMASTIC - TRIPLE LAYER	/240/240	600MM WIDE X INFINITE LENGTH	27186.25	H15 / H17
LINEAR GAP SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUBATT / INTUMASTIC - DOUBLE LAYER WITH EXTRA MASTIC FILLET	/240/240	600MM WIDE X INFINITE LENGTH	27186.25	H16
LINEAR GAP SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUBATT / INTUMASTIC - SINGLE LAYER	/120/120	440MM WIDE X INFINITE LENGTH	27186.25	H18
LINEAR GAP SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUBATT / INTUMASTIC - SINGLE LAYER - FIXED ABOVE FLOOR SLAB LEVEL	/120/120	400MM WIDE X INFINITE LENGTH	27186.25	H19
LINEAR GAP SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUMASTIC	/180/120	35M GAP	35084000.2	47
LINEAR GAP SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUMASTIC	/180/180	210MM GAP	35084000.2	51
LINEAR GAP SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUSIL	/180/180	35MM GAP	35084000.2	48
LINEAR GAP SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUSIL - 20MM THICK - FITTED FLUSH WITH TOP OF FLOOR LEVEL	/120/120	80MM GAP	35256800	70
LINEAR GAP SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUSIL - 20MM THICK - FITTED FLUSH WITH UNDERSIDE OF FLOOR LEVEL	/120/90	80MM GAP	35256800	71
LINEAR GAP SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUSIL	/180/180	120MM GAP	35084000.2	52
LINEAR GAP SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUSIL	/120/120	220MM GAP	35256800	67
LINEAR GAP SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUSPAN 30X150	/120/0	25MM GAP	35084000.2	106
LINEAR GAP SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUSPAN 50X50	/240/60	50MM GAP	35084000.2	107
LINEAR GAP SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUSPAN 75X50	/120/60	75MM GAP	35084000.2	108

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report No.	ID/Ref
SEISMIC/CONSTRUCTION JOINTS							
LINEAR GAP SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUSPAN 100 X 75	/240/120	100MM GAP	35084000.2	109
LINEAR GAP SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUSPAN - 100 X 100 WITH Z CLIPS	/60/60	100MM GAP	35256800	63
LINEAR GAP SEAL	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUSPAN 150 X 150	/240/180	150MM GAP	35084000.2	110
BULK HEAD - NON FRAMED - SHAFT/ENCLOSURE	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC - FIXED AT 2 POINTS	120/120/120	1200MM X 700MM X INFINTE LENGTH	27186.25	H32
BULK HEAD - NON FRAMED - SHAFT/ENCLOSURE	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC - FIXED AT 3 POINTS	120/120/120	600MM X 650MM X INFINITE LENGTH	27186.25	H33 / H34
BULK HEAD - NON FRAMED - SHAFT/ENCLOSURE	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC - FIXED AT 4 POINTS	120/120/120	1200MM X 700MM X INFINTE LENGTH	27186.25	H35
BULK HEAD - FRAMED	WALL/ FLOOR	FLOOR THICKNESS OF REQUIRED FRL - WALL- GIB/CONCRETE/SPEEDWALL	INTUBATT / INTUMASTIC / FRAMING	120/120/120	1200MM X 600MM OR 1200MM HIGH X INFINITE LENGTH	27186.25	H26
BULK HEAD - FRAMED	WALL/ FLOOR	FLOOR THICKNESS OF REQUIRED FRL - WALL- GIB/CONCRETE/SPEEDWALL	INTUBATT / INTUMASTIC - FIXED AT PERIMETER - 2 SIDES	120/120/120	1200MM X 600MM OR 1200MM HIGH X INFINITE LENGTH	27186.25	H28
BULK HEAD - FRAMED	FLOOR	FLOOR THICKNESS OF REQUIRED FRL	INTUBATT / INTUMASTIC - FIXED AT PERIMETER - 3 SIDES	120/120/120	1200MM X 600MM OR 1200MM HIGH X INFINITE LENGTH	27186.25	H29
BULK HEAD - FRAMED	WALL/ FLOOR	FLOOR THICKNESS OF REQUIRED FRL - WALL- GIB/CONCRETE/SPEEDWALL	INTUBATT / INTUMASTIC - FIXED AT PERIMETER - 2 SIDES	120/120/120	600MM X 650MM X INFINITE LENGTH	27186.25	H30
BULK HEAD - NON FRAMED	WALL/ FLOOR	FLOOR THICKNESS OF REQUIRED FRL - WALL- GIB/CONCRETE/SPEEDWALL	INTUBATT / INTUMASTIC - FIXED AT PERIMETER - 2 SIDES	120/120/120	1200MM X 700MM X INFINTE LENGTH	27186.25	H31
BULK HEAD - NON FRAMED	WALL/ FLOOR	FLOOR THICKNESS OF REQUIRED FRL	INTUBATT / INTUMASTIC - FIXED AT PERIMETER - 2 SIDES	120/120/120	1200MM X 700MM X INFINTE LENGTH	27186.25	H32
BULK HEAD - NON FRAMED	FLOOR	FLOOR THICKNESS OF REQUIRED FRL	INTUBATT / INTUMASTIC - FIXED AT PERIMETER - 3 SIDES	120/120/120	1200MM X 650MM X INFINITE LENGTH	27186.25	H33/ H34
BULK HEAD - NON FRAMED	FLOOR	FLOOR THICKNESS OF REQUIRED FRL	INTUBATT / INTUMASTIC - FIXED AT PERIMETER - 4 SIDES	120/120/120	1200MM X 700MM X INFINTE LENGTH	27186.25	H35
BLANK SEAL	FLOOR	175MM THICK CONCRETE FLOOR	INTUCOMPOUND - 100MM THICK	/240/240	600X800MM VOID	35256800	68
LINEAR GAP SEAL	FLOOR	175MM THICK CONCRETE FLOOR	INTUMASTIC	/240/240	210MM GAP	35084000.2	51
LINEAR GAP SEAL	FLOOR	175MM THICK CONCRETE FLOOR	INTUSIL	/240/240	35MM GAP	35084000.2	48
LINEAR GAP SEAL	FLOOR	175MM THICK CONCRETE FLOOR	INTUSIL	/240/240	120MM GAP	35084000.2	52
LINEAR GAP SEAL	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	TBA TITAN FIRE CURTAIN WITH ROCKWOOL BELOW	/120/120	1100MM GAP	FCO-2896	8
LINEAR GAP SEAL	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	TBA TITAN FIRE CURTAIN	/120/60	1100MM GAP	FCO-2896	8
LINEAR GAP SEAL	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	TBA PLUS 60 FIRE CURTAIN	/120/30	1100MM GAP	FCO-2896	8
LINEAR GAP SEAL	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	TBA PHOENIX FIRE CURTAIN	/120/0	1100MM GAP	FCO-2896	8

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report No.	ID/Ref
HVAC							
LORIENT INTUMESCENT DAMPER	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC / LORIENT VENT	/120/120	450X450 INTUMESCENT DAMPER	340885000.9	V46
DAMPER - MECHANICAL	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC	/120/120	2400 X 2400 DAMPER	340885000.9	V47
INTUVENT SLEEVE	WALL	145MM THICK WALL - GIB / MASONRY / CONCRETE	INTUVENT SLEEVE	/120/120	152MM DIA OPENING	352568000	72
DAMPER - MECHANICAL	WALL	130MM THICK GIB / MASONRY / CONCRETE	INTUVENT / INTUBATT / INTUMASTIC	/60/30	510 X 260 DUCT	35084000.2	55
DAMPER - MECHANICAL	WALL	130MM THICK CONCRETE / MASONRY WALL	INTUBATT / INTUMASTIC	/120/0	400X400 DUCT	35084000.2	56
STEEL DUCT	WALL	150MM THICK CONCRETE / MASONRY WALL	INTUMASTIC	/120/0	600X300 DUCT	35084000.2	54
DAMPER - MECHANICAL	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUCOMPOUND	/180/0	ACTION AIR	35084000.2	58
DAMPER - MECHANICAL	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUCOMPOUND	/240/0	ACTION AIR	35256800	74
DAMPER - MECHANICAL	FLOOR	150MM THICK CONCRETE / MASONRY FLOOR	INTUBATT / INTUMASTIC	/120/0	ACTION AIR	35084000.2	57
MIXED SERVICE PENETRATION DEVICES							
COPPER PIPES / ARMAFLEX / PVC PIPE / CABLES	WALL	100MM THICK WALL - GIB / MASONRY / SPEEDWALL / CLT	INTUBATT / INTUMASTIC HP	/180/120	BUNDLE	340885000.9	V59
COPPER PIPES /PAIR COIL / PVC PIPE / CABLES	WALL	116MM THICK WALL - GIB / MASONRY / CONCRETE	SL COLLAR - 110MM DIA	/90/30	25MM PVC PIPE / 5 CABLES / 3 PAIR COIL	46469500.2	D
COPPER PIPES /PAIR COIL / PVC PIPE / CABLES	WALL	116MM THICK WALL - GIB / MASONRY / CONCRETE	INTUMASTIC HP - 110MM DIA OPENING	/90/60	25MM PVC PIPE / 5 CABLES / PAIR COIL	46469500.2	E
COPPER PIPES / ARMAFLEX / PVC PIPE / CABLES	WALL	150MM THICK MASONRY / CONCRETE WALL	INTUMASTIC HP / PENOWRAP	/120/120	9X13MM COPPER PIPES / 20XTPS CABLES/PVC PIPE	23671.04	46
COPPER PIPES / ARMAFLEX / PVC PIPE / CABLES	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC HP	/120/120	9X13MM COPPER PIPES / 20XTPS CABLES/PVC PIPE	340885000.9	V61
COPPER PIPE / CABLE BUNDLE	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	RF COLLAR	/120/120	COPPER PIPE / ALARM CABLES / COMMS CABLES	340885000.9	V17
PVC PIPES / DATA / TPS CABLES / PEX PIPE / BEER LINES	WALL	116MM THICK WALL - GIB / MASONRY / CONCRETE	RYANFIRE SL COLLAR - INVERTED / INTUMASTIC HP	/90/0	80MM/55MM DIA PVC PIPE/20 MIX CABLES/PEX PIPE / BEER LINE	51028300.1	D
A/C PAIR COIL / TPS CABLES / PVC PIPE	WALL	116MM THICK WALL - GIB / MASONRY / CONCRETE	RYANFIRE SL COLLAR - INTUMASTOC HP	/90/0	3 X A/C PAIR COIL / 6 X TPS CABLES / 1 X 32MM DIA PVC PIPE	51028300.1	G
COPPER PIPES / ARMAFLEX / PVC PIPE / CABLES	FLOOR	100MM CONCRETE / MASONRY WALL	INTUMASTIC HP / PENOWRAP	/120/120	9X13MM COPPER PIPES / 20XTPS CABLES/PVC PIPE	23671.4	42
COPPER PIPES / TPS CABLES	FLOOR	100MM CONCRETE / MASONRY WALL	INTUMASTIC HP	/120/120	6 X 13MM DIA COPPER PIPES / 6 X TPS CABLES	23671.4	44
PAIR COIL / PVC PIPE / TPS CABLES	FLOOR	COMPOSITE FLOORS - 65MM THICK CONCRETE	INTUBATTT / INTUMASTIC / INTUMASTIC HP	/120/60	PAIR COIL / 25MM DIA PVC PIPE / TPS CABLES	46812300.1	9
CABLE CONDUIT / PVC PIPE / TPS CABLES	FLOOR	COMPOSITE FLOORS - 65MM THICK CONCRETE	INTUBATT / INTUMASTIC / INTUMASTIC HP / INTUSTRAP	/90/60	50MM DIA PVC / 30MM DIS PEX / 50MM DIA CONDUIT	46812300.1	8

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report No.	ID/Ref
MIXED SERVICE PENETRATION DEVICES							
A/FLEX PAIR COIL / CABLES / PVC PIPE	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC / INTUMASTIC HP	/180/120	A/FLEX PAIR COIL / CABLES / PVC PIPE	340885000.9	H40
A/FLEX PAIR COIL/CABLES/PVC PIPE - CABLE TRAY/NO TRAY	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC / INTUMASTIC HP / PENOWRAP	/120/120	9 X COPPER PIPES / PVC PIPE / 20 X TPS CABLES	340885000.9	H42
CABLES / CONDUITS / TPS CABLES / PVC PIPE	FLOOR	150MM CONCRETE / MASONRY FLOOR	INTUSLEEVE / INTUSIL	/240/60	20 X OPTICAL / 8 X TPS CABLES / 4 X PVC PIPES	35319300	44
MISCELLANEOUS PENETRATIONS							
INSPECTION OPENING	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC / INTUSPAN	/120/120	200 X 114MM	340885000.9	V48
TIMBER JOIST	WALL	145MM THICK WALL - CONCRETE / MASONRY / HEBEL WALLS	INTUBATT / INTUMASTIC	/120/120	95MM X 45MM TIMBER	35319300	45
TIMBER JOIST	WALL	110MM THICK WALL (MINIMUM) - GIB / MASONRY / HEBEL / 77MM THICK SPEEDWALL	INTUBATT / INTUMASTIC / PENOWRAP	/120/120		340885000.9	V63
STEEL BEAMS	WALL	100MM THICK CONCRETE / MASONRY / HEBEL WALLS	INTUMASTIC HP / PENOWRAP	/120/120	150 / 200 UB	23671.4	47
STEEL BEAMS	WALL	100MM THICK CONCRETE / MASONRY / HEBEL WALLS	INTUBATT / INTUMASTIC	/120/120	U BEAMS	23671.4	52
STEEL BEAMS	WALL	100MM THICK CONCRETE / MASONRY / HEBEL WALLS	INTUBATT / INTUMASTIC	/180/180	U BEAMS	23671.4	52
PURLINS	WALL	100MM THICK CONCRETE / MASONRY / HEBEL WALLS	INTUMASTIC HP / PENOWRAP	/120/120	C PURLINS	23671.4	49
STEEL TILT SLAB PLATES	WALL	100MM THICK CONCRETE / MASONRY / HEBEL WALLS	INTUBATT / INTUMASTIC	/120/120	200X100 PLATE	23671.4	51
THREADED ROD	WALL	100MM THICK CONCRETE / MASONRY / HEBEL WALLS	INTUBATT / INTUMASTIC / PENOWRAP	/120/120	12MM DIA	340885000.9	V65
STEEL BEAMS / PURLINS	WALL/ FLOOR	100MM THICK GIB / MASONRY / CONCRETE WALL / FLOOR TO SUIT FRL	INTUBATT / INTUMASTIC / PENOWRAP	/180/180		340885000.9	V62 / V64
ACCESS HATCH	WALL	116MM THICK WALL - GIB / MASONRY / CONCRETE WALLS	RYANFIRE ACCESS HATCH	/90/0	300X300	46469500.2	C
VENTILLATED ELECTRICAL DOWNLIGHTER COVER	CEILING	GIB - THICKNESS OF THE REQUIRED DRL	RYANFIRE DOWNLIGHTER COVER	/60/60	150 / 200 / 250 / 320 / 420 DIA DOWNLIGHTERS	4863	
THREADED ROD	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC	/120/0	12MM DIA ROD	34088500.9	H19
THREADED ROD	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC / PENOWRAP	/120/120	12MM DIA ROD	34088500.9	H46
STEEL BEAMS / PURLINS	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC / PENOWRAP	/180/180		34088500.9	H43/ H45
TIMBER JOIST	FLOOR	FLOOR THICKNESS OF THE REQUIRED FRL	INTUBATT / INTUMASTIC / PENOWRAP	/120/120		34088500.9	H44
TIMBER JOIST	FLOOR	150MM THICK CONCRETE FLOOR	INTUBATT / INTUMASTIC	/240/180	95X45MM TIMBER	35319300	46

SNAP FIRE SYSTEMS

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The products listed in this register have all been tested to AS1530.4-2005 or Assessed to AS 4072.1-2005 as referenced within the New Zealand Building Code.

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
NON-INSULATED COMBUSTIBLE PIPES						
uPVC pipe only (or with fitting)	BEAM	Concrete Beam	SNAP H100S - Cast In collar - Stack	-/240/240	100mm	FSP1715
uPVC pipe only (or with fitting)	BEAM	Concrete Beam	SNAP L100FWS - Cast In collar - Floorwaste & Shower	-/240/240	100mm	FSP1715
dBlue pipe	FLOOR	150mm Concrete Slab	SNAP L40/L50S - Retrofit collar - Stack	-/240/240	40mm	FSP1648
dBlue pipe	FLOOR	150mm Concrete Slab	SNAP H50S - Retrofit collar - Stack	-/240/240	50mm	FSP1648
dBlue pipe	FLOOR	150mm Concrete Slab	SNAP L80S - Cast In collar - Stack	-/240/240	75mm	FSP1648
dBlue pipe	FLOOR	150mm Concrete Slab	SNAP H100S - Cast In collar - Stack	-/240/240	110mm	FSP1648
dBlue pipe	FLOOR	150mm Concrete Slab	SNAP H150S - Cast In collar - Stack	-/240/120	160mm	FSP1648
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP 50R - Retrofit collar - Stack	-/240/240	40mm	FP4837
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP H50FWS - Retrofit collar - Floorwaste & Shower	-/180/180	40mm	FCO2598
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP H50S - Retrofit collar - Stack	-/240/240	40mm	FSP1736
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP H65S - Retrofit collar - Stack	-/240/240	40mm	FR5670
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP LP65R - Retrofit collar - Floorwaste & Shower	-/240/240	40mm	FSP1789
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP H50FWS - Retrofit collar - Floorwaste & Shower	-/240/240	50mm	FR5670
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP H50S - Retrofit collar - Stack	-/240/240	50mm	FSP1615
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP LP50R - Retrofit collar - Floorwaste & Shower	-/180/180	50mm	FSP1146
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP H50FWS - Retrofit collar - Floorwaste & Shower	-/240/240	56mm	FSP1592
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP H50S - Retrofit collar - Stack	-/240/240	56mm	FP4640
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP H65S - Retrofit collar - Stack	-/240/240	56mm	FSP1700
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP H100S - Cast In collar - Stack	-/240/240	63mm	FAR3932
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP H65S - Cast In collar - Stack	-/240/240	63mm	FSP1696
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP H100S - Cast In collar - Stack	-/240/240	75mm	FAR3932
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP H100S - Cast In collar - Stack	-/240/240	90mm	FAR3932
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP L100FWS - Cast In collar - Floorwaste & Shower	-/240/240	100mm	FSP1592
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP 110R - Cast In collar - Stack	-/240/240	110mm	FP4837
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP H100FWS - Cast In collar - Floorwaste & Shower	-/180/180	110mm	FCO2598
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP H100FWS - Cast In collar - Floorwaste & Shower	-/180/180	110mm	FSP1134
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP H100S - Cast In collar - Stack	-/240/240	110mm	FSP1577

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
NON-INSULATED COMBUSTIBLE PIPES						
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP HP100R - Cast In collar - Floorwaste & Shower	-/240/240	110mm	FP4640
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP LP100R-D - Cast In collar - Floorwaste & Shower	-/240/240	110mm	FSP1830
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP H150S - Cast In collar - Stack	-/240/240	125mm	FR5670
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP H150S - Cast In collar - Stack	-/240/180	125mm	FSP1615
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP HP150R - Cast In collar - Stack	-/240/240	125mm	FSP1615
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP H150S - Cast In collar - Stack	-/180/180	160mm	FAR3528
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP H150S - Cast In collar - Stack	-/180/180	160mm	FSP1132
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP H150S - Cast In collar - Stack	-/180/120	160mm	FR5670
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP HP150R - Cast In collar - Stack	-/240/240	160mm	FSP1615
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP LP200R - Cast In collar - Stack	-/180/180	200mm	FSP1641
HDPE pipe	FLOOR	150mm Concrete Slab	SNAP HP250R-B - Cast In collar - Stack	-/180/180	250mm	FSP1692
HDPE Silent pipe	FLOOR	150mm Concrete Slab	SNAP LP50R - Retrofit collar - Floorwaste & Shower	-/180/180	50mm	FSP1146
HDPE Silent pipe	FLOOR	150mm Concrete Slab	SNAP H100S - Cast In collar - Stack	-/240/240	110mm	FAR3932
HDPE Silent pipe	FLOOR	150mm Concrete Slab	SNAP L100S - Cast In collar - Stack	-/240/240	110mm	FAR3932
IPLEX PE-AL-PE pipe	FLOOR	150mm Concrete Slab	SNAP 32GAS - Retrofit collar - Stack	-/240/240	16mm	FSP1339
IPLEX PE-AL-PE pipe	FLOOR	150mm Concrete Slab	SNAP 32GAS - Retrofit collar - Stack	-/240/240	20mm	FCO2718
IPLEX PE-AL-PE pipe	FLOOR	150mm Concrete Slab	SNAP 32GAS - Retrofit collar - Stack	-/240/240	25mm	FCO2718
IPLEX PE-AL-PE pipe	FLOOR	150mm Concrete Slab	SNAP 32GAS - Retrofit collar - Stack	-/240/240	32mm	FSP1339
IPLEX PE-AL-PE pipe	FLOOR	150mm Concrete Slab	SNAP 50GAS - Retrofit collar - Stack	-/240/240	32mm	FCO2718
IPLEX PE-AL-PE pipe	FLOOR	150mm Concrete Slab	SNAP 50GAS - Retrofit collar - Stack	-/240/240	32mm	FSP1340
IPLEX PE-AL-PE pipe	FLOOR	150mm Concrete Slab	SNAP 50GAS - Retrofit collar - Stack	-/240/240	40mm	FCO2718
IPLEX PE-AL-PE pipe	FLOOR	150mm Concrete Slab	SNAP 50GAS - Retrofit collar - Stack	-/240/0	40mm	FCO2718
IPLEX PE-AL-PE pipe	FLOOR	150mm Concrete Slab	SNAP 50GAS - Retrofit collar - Stack	-/240/240	50mm	FSP1339
IPLEX PE-AL-PE pipe	FLOOR	150mm Concrete Slab	SNAP 50GAS - Retrofit collar - Stack	-/240/0	50mm	FSP1340
PE 11 pipe	FLOOR	150mm Concrete Slab	SNAP H100FWS - Cast In collar - Stack	-/240/180	110mm	FSP1367a
PE 11 pipe	FLOOR	150mm Concrete Slab	SNAP 125C - Cast In collar - Stack	-/240/120	125mm	FSP1367a
PE 11 pipe	FLOOR	150mm Concrete Slab	SNAP H150S - Cast In collar - Stack	-/240/120	160mm	FAR3528
PE 11 pipe	FLOOR	150mm Concrete Slab	SNAP H150S - Cast In collar - Stack	-/240/120	160mm	FSP1367a
PE 7.4 pipe	FLOOR	150mm Concrete Slab	SNAP H50FWS - Retrofit collar - Stack	-/240/240	20mm	FSP1367a
PE 7.4 pipe	FLOOR	150mm Concrete Slab	SNAP H50FWS - Retrofit collar - Stack	-/240/240	25mm	FAR3932
PE 7.4 pipe	FLOOR	150mm Concrete Slab	SNAP H50FWS - Retrofit collar - Stack	-/240/240	32mm	FAR3932
PE 7.4 pipe	FLOOR	150mm Concrete Slab	SNAP H50FWS - Retrofit collar - Stack	-/240/240	40mm	FAR3932
PE 7.4 pipe	FLOOR	150mm Concrete Slab	SNAP H100FWS - Retrofit collar - Stack	-/240/240	50mm	FSP1367a
PE 7.4 pipe	FLOOR	150mm Concrete Slab	SNAP H50FWS - Retrofit collar - Stack	-/240/240	50mm	FSP1367a
PE 7.4 pipe	FLOOR	150mm Concrete Slab	SNAP H100FWS - Cast In collar - Stack	-/240/180	63mm	FAR3932

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
NON-INSULATED COMBUSTIBLE PIPES						
PE 7.4 pipe	FLOOR	150mm Concrete Slab	SNAP H100FWS - Cast In collar - Stack	-/240/180	75mm	FAR3932
PE 7.4 pipe	FLOOR	150mm Concrete Slab	SNAP H100FWS - Cast In collar - Stack	-/240/180	90mm	FAR3932
PEX-A pipe	FLOOR	150mm Concrete Slab	SNAP 32R - Retrofit collar - Stack	-/240/180	16mm	FR5670
PEX-A pipe	FLOOR	150mm Concrete Slab	SNAP H50S - Retrofit collar - Stack	-/240/240	16mm	FR5670
PEX-A pipe	FLOOR	150mm Concrete Slab	SNAP 32R - Retrofit collar - Stack	-/240/240	20mm	FR5670
PEX-A pipe	FLOOR	150mm Concrete Slab	SNAP H50S - Retrofit collar - Stack	-/240/240	20mm	FR5670
PEX-A pipe	FLOOR	150mm Concrete Slab	SNAP 32R - Retrofit collar - Stack	-/240/240	25mm	FR5670
PEX-A pipe	FLOOR	150mm Concrete Slab	SNAP LP50R - Retrofit collar - Multiple Stack	-/240/240	3x20mm	FSP1849
PEX-AL pipe	FLOOR	150mm Concrete Slab	SNAP 32GAS - Retrofit collar - Stack	-/240/240	16mm	FSP1758
PEX-AL pipe	FLOOR	150mm Concrete Slab	SNAP 32GAS - Retrofit collar - Stack	-/240/240	20mm	FSP1758
PEX-AL pipe	FLOOR	150mm Concrete Slab	SNAP 32GAS - Retrofit collar - Stack	-/240/240	26mm	FSP1758
PEX-AL pipe	FLOOR	150mm Concrete Slab	SNAP 32GAS - Retrofit collar - Stack	-/240/240	32mm	FSP1758
PEX-AL pipe	FLOOR	150mm Concrete Slab	SNAP 50GAS - Retrofit collar - Stack	-/240/120	40mm	FSP1758
PEX-AL pipe	FLOOR	150mm Concrete Slab	SNAP 50GAS - Retrofit collar - Stack	-/240/180	50mm	FSP1771
PEX-AL pipe	FLOOR	150mm Concrete Slab	SNAP 63GAS - Retrofit collar - Stack	-/240/120	63mm	FSP1758
PEX-B pipe	FLOOR	150mm Concrete Slab	SNAP 32R - Retrofit collar - Stack	-/240/240	16mm	FR5670
PEX-B pipe	FLOOR	150mm Concrete Slab	SNAP H50S - Retrofit collar - Stack	-/240/240	16mm	FR5670
PEX-B pipe	FLOOR	150mm Concrete Slab	SNAP 32R - Retrofit collar - Stack	-/240/240	20mm	FR5670
PEX-B pipe	FLOOR	150mm Concrete Slab	SNAP H50S - Retrofit collar - Stack	-/240/240	20mm	FR5670
PEX-B pipe	FLOOR	150mm Concrete Slab	SNAP 32R - Retrofit collar - Stack	-/240/240	25mm	FR5670
PPR 7.4 pipe	FLOOR	150mm Concrete Slab	SNAP H50FWS - Retrofit collar - Stack	-/240/240	20mm	FSP1359
PPR 7.4 pipe	FLOOR	150mm Concrete Slab	SNAP H50FWS - Retrofit collar - Stack	-/240/240	25mm	FAR3932
PPR 7.4 pipe	FLOOR	150mm Concrete Slab	SNAP H50FWS - Retrofit collar - Stack	-/240/240	32mm	FAR3932
PPR 7.4 pipe	FLOOR	150mm Concrete Slab	SNAP H50FWS - Retrofit collar - Stack	-/240/240	40mm	FAR3932
PPR 7.4 pipe	FLOOR	150mm Concrete Slab	SNAP H100FWS - Retrofit collar - Stack	-/240/180	50mm	FSP1359
PPR 7.4 pipe	FLOOR	150mm Concrete Slab	SNAP H50FWS - Retrofit collar - Stack	-/240/240	50mm	FSP1359
PPR 7.4 pipe	FLOOR	150mm Concrete Slab	SNAP H100FWS - Cast In collar - Stack	-/240/180	63mm	FAR3932
PPR 7.4 pipe	FLOOR	150mm Concrete Slab	SNAP H100FWS - Cast In collar - Stack	-/240/180	75mm	FAR3932
PPR 7.4 pipe	FLOOR	150mm Concrete Slab	SNAP H100FWS - Cast In collar - Stack	-/240/180	90mm	FAR3932
PPR 7.4 pipe	FLOOR	150mm Concrete Slab	SNAP H100FWS - Cast In collar - Stack	-/240/240	110mm	FSP1359
PPR 7.4 pipe	FLOOR	150mm Concrete Slab	SNAP 125C - Cast In collar - Stack	-/240/180	125mm	FSP1359
PPR 7.4 pipe	FLOOR	150mm Concrete Slab	SNAP H150S - Cast In collar - Stack	-/240/180	160mm	FAR3528
PPR 7.4 pipe	FLOOR	150mm Concrete Slab	SNAP H150S - Cast In collar - Stack	-/240/180	160mm	FSP1359
P-PVC pipe	FLOOR	150mm Concrete Slab	SNAP H50FWS - Retrofit collar - Stack	-/240/240	15mm	FSP1601
P-PVC pipe	FLOOR	150mm Concrete Slab	SNAP H50S - Retrofit collar - Stack	-/240/240	32mm	FR5670

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
NON-INSULATED COMBUSTIBLE PIPES						
P-PVC pipe	FLOOR	150mm Concrete Slab	SNAP H50FWS - Retrofit collar - Stack	-/240/240	50mm	FSP1601
Progef pipe	FLOOR	150mm Concrete Slab	SNAP 32R - Retrofit collar - Stack	-/240/240	25mm	FSP1657
Progef pipe	FLOOR	150mm Concrete Slab	SNAP H50FWS - Retrofit collar - Stack	-/240/240	25mm	FSP1657
Progef pipe	FLOOR	150mm Concrete Slab	SNAP 32R - Retrofit collar - Stack	-/240/240	32mm	FSP1657
Progef pipe	FLOOR	150mm Concrete Slab	SNAP 50R - Retrofit collar - Stack	-/240/240	40mm	FSP1657
Progef pipe	FLOOR	150mm Concrete Slab	SNAP H50FWS - Retrofit collar - Stack	-/240/240	40mm	FSP1657
Progef pipe	FLOOR	150mm Concrete Slab	SNAP 50R - Retrofit collar - Stack	-/240/240	50mm	FSP1657
Progef pipe	FLOOR	150mm Concrete Slab	SNAP H50FWS - Retrofit collar - Stack	-/240/240	50mm	FSP1657
Progef pipe	FLOOR	150mm Concrete Slab	SNAP 63R - Retrofit collar - Stack	-/240/240	63mm	FSP1657
Progef pipe	FLOOR	150mm Concrete Slab	SNAP H50FWS - Cast In collar - Stack	-/240/240	63mm	FSP1657
Raupiano pipe	FLOOR	150mm Concrete Slab	SNAP H50S - Retrofit collar - Stack	-/240/240	40mm	FSP1564
Raupiano pipe	FLOOR	150mm Concrete Slab	SNAP H50FWS - Retrofit collar - Floorwaste & Shower	-/240/240	50mm	FSP1564
Raupiano pipe	FLOOR	150mm Concrete Slab	SNAP H100FWS - Cast In collar - Floorwaste & Shower	-/240/240	100mm	FSP1564
Raupiano pipe	FLOOR	150mm Concrete Slab	SNAP H100S - Cast In collar - Stack	-/240/240	100mm	FSP1564
Raupiano pipe	FLOOR	150mm Concrete Slab	SNAP H150S - Cast In collar - Stack	-/240/240	150mm	FSP1592
Raupiano pipe	FLOOR	150mm Concrete Slab	SNAP H150S - Cast In collar - Stack	-/240/180	150mm	FR5670
Raupiano pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP L40/L50S - Retrofit collar - Stack	-/240/240	40mm	FSP1614
Raupiano pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP LP50R - Retrofit collar - Stack	-/240/240	40mm	FSP1713
Raupiano pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP L40/L50S - Retrofit collar - Stack	-/240/240	50mm	FSP1614
Raupiano pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP LP50R - Retrofit collar - Floorwaste & Shower	-/240/240	50mm	FSP1713
Raupiano pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP L80FWS - Cast In collar - Stack	-/240/240	75mm	FSP1614
Raupiano pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP H150S - Cast In collar - Stack	-/240/240	100mm	FSP1614
Raupiano pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP H100S - Cast In collar - Stack	-/240/240	110mm	FSP1741
Raupiano pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP H150S - Cast In collar - Stack	-/240/180	110mm	FR5670
Raupiano pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP LP100R-B - Cast In collar - Stack	-/240/240	110mm	FSP1713
REHAU PX-AL-PE pipe	FLOOR	150mm Concrete Slab	SNAP 32GAS - Retrofit collar - Stack	-/240/240	32mm	FSP1339
REHAU PX-AL-PE pipe	FLOOR	150mm Concrete Slab	SNAP 50GAS - Retrofit collar - Stack	-/240/180	40mm	FSP1340
REHAU PX-AL-PE pipe	FLOOR	150mm Concrete Slab	SNAP 50GAS - Retrofit collar - Stack	-/240/240	40mm	FSP1340
Rifeng PX-AL-PX pipe	FLOOR	150mm Concrete Slab	SNAP 32GAS - Retrofit collar - Stack	-/240/240	16mm	FSP1339
Rifeng PX-AL-PX pipe	FLOOR	150mm Concrete Slab	SNAP 32GAS - Retrofit collar - Stack	-/240/240	20mm	FCO2719
Rifeng PX-AL-PX pipe	FLOOR	150mm Concrete Slab	SNAP 32GAS - Retrofit collar - Stack	-/240/240	25mm	FCO2719
Rifeng PX-AL-PX pipe	FLOOR	150mm Concrete Slab	SNAP 32GAS - Retrofit collar - Stack	-/240/240	32mm	FSP1339
Rifeng PX-AL-PX pipe	FLOOR	150mm Concrete Slab	SNAP 50GAS - Retrofit collar - Stack	-/240/240	32mm	FSP1339
Rifeng PX-AL-PX pipe	FLOOR	150mm Concrete Slab	SNAP 50GAS - Retrofit collar - Stack	-/240/240	32mm	FSP1340
Rifeng PX-AL-PX pipe	FLOOR	150mm Concrete Slab	SNAP 50GAS - Retrofit collar - Stack	-/240/240	40mm	FCO2719

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
NON-INSULATED COMBUSTIBLE PIPES						
Rifeng PX-AL-PX pipe	FLOOR	150mm Concrete Slab	SNAP 50GAS - Retrofit collar - Stack	-/240/180	40mm	FCO2719
Rifeng PX-AL-PX pipe	FLOOR	150mm Concrete Slab	SNAP 50GAS - Retrofit collar - Stack	-/240/240	50mm	FCO2719
Rifeng PX-AL-PX pipe	FLOOR	150mm Concrete Slab	SNAP 50GAS - Retrofit collar - Stack	-/240/180	50mm	FSP1340
Rifeng PX-AL-PX pipe	FLOOR	150mm Concrete Slab	SNAP 63GAS - Retrofit collar - Stack	-/240/240	63mm	FSP1340
Triplus pipe	FLOOR	150mm Concrete Slab	SNAP L40/L50S - Retrofit collar - Stack	-/240/240	40mm	FSP1652
Triplus pipe	FLOOR	150mm Concrete Slab	SNAP H50S - Retrofit collar - Stack	-/240/240	50mm	FSP1652
Triplus pipe	FLOOR	150mm Concrete Slab	SNAP L80S - Cast In collar - Stack	-/240/240	75mm	FSP1652
Triplus pipe	FLOOR	150mm Concrete Slab	SNAP H100S - Cast In collar - Stack	-/240/240	110mm	FSP1652
Triplus pipe	FLOOR	150mm Concrete Slab	SNAP L100FWS - Cast In collar - Floorwaste & Shower	-/240/240	110mm	FSP1652
Triplus pipe	FLOOR	150mm Concrete Slab	SNAP H150S - Cast In collar - Stack	-/240/180	160mm	FSP1652
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP H50FWS - Retrofit collar - Floorwaste & Shower	-/240/240	40mm	FSP1576
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP H50S - Retrofit collar - Stack	-/240/120	40mm	FR5670
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP L40/L50S - Retrofit collar - Stack	-/240/240	40mm	FSP1575
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP 50R - Retrofit collar - Stack	-/240/240	50mm	FSP1686
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP H100FWS - Retrofit collar - Floorwaste & Shower	-/240/240	50mm	FP4640
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP H50FWS - Retrofit collar - Floorwaste & Shower	-/240/240	50mm	FSP1576
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP H50FWS - Retrofit collar - Floorwaste & Shower	-/240/240	50mm	FR5670
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP H50S - Retrofit collar - Stack	-/240/240	50mm	FSP1575
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP LP50R - Retrofit collar - Floorwaste & Shower	-/240/240	50mm	FP4640
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP LP65R - Retrofit collar - Stack	-/180/180	50mm	FSP1641
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP 65-80R - Cast In collar - Stack	-/240/240	65mm	FP4837
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP H100FWS - Cast In collar - Floorwaste & Shower	-/240/240	65mm	FSP1577
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP H100S - Cast In collar - Stack	-/240/60	65mm	FR5670
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP L65S - Cast In collar - Stack	-/240/240	65mm	FSP1575
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP 65-80R - Cast In collar - Stack	-/240/240	80mm	FP4837
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP H100FWS - Cast In collar - Floorwaste & Shower	-/240/240	80mm	FSP1576
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP H100S - Cast In collar - Stack	-/240/240	80mm	FSP1575
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP LP100R-C - Cast In collar - Floorwaste & Shower	-/180/120	80mm	FR5670
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP LP100R-D - Cast In collar - Floorwaste & Shower	-/240/240	80mm	FSP1781
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP LP80R - Cast In collar - Floorwaste & Shower	-/240/240	80mm	FSP1592
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP 110R - Cast In collar - Stack	-/240/240	100mm	FP4640
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP H100FWS - Cast In collar - Floorwaste & Shower	-/240/240	100mm	FSP1576
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP H100FWS - Cast In collar - Floorwaste & Shower	-/240/240	100mm	FR5670
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP H100S - Cast In collar - Stack	-/240/240	100mm	FP4837
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP H100S - Cast In collar - Stack	-/240/240	100mm	FSP1575

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
NON-INSULATED COMBUSTIBLE PIPES						
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP H150S - Cast In collar - Floorwaste & Shower	-/240/240	100mm	FSP1592
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP L100FWS - Cast In collar - Floorwaste & Shower	-/240/240	100mm	FP4837
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP H150S - Cast In collar - Stack	-/180/180	150mm	FAR3528
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP HP150R - Cast In collar - Stack	-/240/240	150mm	FSP1601
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP 250C - Cast In collar - Stack	-/180/180	225mm	FSP1641
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP HP250R-B - Cast In collar - Stack	-/240/240	225mm	FSP1849
uPVC pipe	FLOOR	150mm Concrete Slab	SNAP 315C - Cast In collar - Stack	-/180/180	315mm	FSP1144
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP 50R - Retrofit collar - Stack	-/240/240	40mm	FP4837
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP H50S - Retrofit collar - Stack	-/240/240	40mm	FSP1577
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP H65S - Retrofit collar - Stack	-/240/240	40mm	FSP1735
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP LP50R - Retrofit collar - Floorwaste & Shower	-/240/120	40mm	FR5670
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP LP65R - Retrofit collar - Floorwaste & Shower	-/180/180	40mm	FSP1641
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP 63R - Retrofit collar - Stack	-/240/240	50mm	FP4640
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP H50FWS - Retrofit collar - Floorwaste & Shower	-/240/240	50mm	FSP1564
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP H50S - Retrofit collar - Stack	-/240/240	50mm	FAR3932
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP H65S - Retrofit collar - Stack	-/240/240	50mm	FSP1696
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP L40/L50S - Retrofit collar - Stack	-/240/240	50mm	FAR3932
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP LP50R - Retrofit collar - Floorwaste & Shower	-/240/240	50mm	FSP1700
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP H100S - Cast In collar - Stack	-/240/240	65mm	FAR3932
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP H65S - Cast In collar - Stack	-/240/240	65mm	FSP1696
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP L65S - Cast In collar - Stack	-/240/240	65mm	FAR3932
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP LP65R - Cast In collar - Floorwaste & Shower	-/240/240	65mm	FSP1789
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP H100S - Cast In collar - Stack	-/240/240	80mm	FAR3932
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP H100S - Cast In collar - Stack	-/240/240	80mm	FSP1830
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP L80S - Cast In collar - Stack	-/240/240	80mm	FAR3932
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP LP100R-D - Cast In collar - Floorwaste & Shower	-/240/240	80mm	FSP1789
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP H100S - Cast In collar - Stack	-/240/240	90mm	FAR3932
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP L100S - Cast In collar - Stack	-/240/240	90mm	FAR3932
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP 110R - Cast In collar - Stack	-/240/240	100mm	FP4640
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP H100FWS - Cast In collar - Floorwaste & Shower	-/240/240	100mm	FSP1577
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP H100S - Cast In collar - Stack	-/240/240	100mm	FAR3932
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP H100S - Cast In collar - Stack	-/240/240	100mm	FSP1577
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP H150S - Cast In collar - Stack	-/240/240	100mm	FAR3932
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP H150S - Cast In collar - Stack	-/240/240	100mm	FR5670
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP L100S - Cast In collar - Stack	-/240/240	100mm	FAR3932

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
NON-INSULATED COMBUSTIBLE PIPES						
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP LP100R-b - Cast In collar - Floorwaste & Shower	-/240/180	100mm	FSP1713
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP H150S - Cast In collar - Floorwaste & Shower	-/240/240	150mm	FSP1700
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP H150S - Cast In collar - Stack	-/240/180	150mm	FR5670
uPVC pipe only (or with fitting)	FLOOR	150mm Concrete Slab	SNAP HP150R - Cast In collar - Stack	-/240/240	150mm	FSP1615
Wavin AS pipe	FLOOR	150mm Concrete Slab	SNAP H65S - Retrofit collar - Stack	-/240/240	56mm	FSP1771
Wavin AS pipe	FLOOR	150mm Concrete Slab	SNAP H100S - Cast In collar - Stack	-/240/240	70mm	FSP1771
Wavin AS pipe	FLOOR	150mm Concrete Slab	SNAP H100S - Cast In collar - Stack	-/240/240	110mm	FSP1771
HDPE pipe	FLOOR	150mm Concrete Slab + Condeck	SNAP H50FWS - Retrofit collar - Floorwaste & Shower	-/240/240	56mm	FSP1686
uPVC pipe	FLOOR	150mm Concrete Slab + Condeck	SNAP H50FWS - Retrofit collar - Floorwaste & Shower	-/240/240	50mm	FSP1686
Raupiano pipe	FLOOR	170mm Concrete Slab	SNAP L40/L50S - Retrofit collar - Stack	-/240/240	40mm	FAR4019
Raupiano pipe	FLOOR	170mm Concrete Slab	SNAP L40/L50S - Retrofit collar - Stack	-/240/240	40mm	FAR4019
Raupiano pipe	FLOOR	170mm Concrete Slab	SNAP H50S - Retrofit collar - Stack	-/240/240	50mm	FAR4019
Raupiano pipe	FLOOR	170mm Concrete Slab	SNAP L40/L50S - Retrofit collar - Stack	-/240/240	50mm	FAR4019
Raupiano pipe	FLOOR	170mm Concrete Slab	SNAP H100S - Cast In collar - Stack	-/240/240	75mm	FAR4019
Raupiano pipe	FLOOR	170mm Concrete Slab	SNAP L80S - Cast In collar - Stack	-/240/240	75mm	FAR4019
Raupiano pipe	FLOOR	170mm Concrete Slab	SNAP H100S - Cast In collar - Stack	-/240/240	90mm	FAR4019
Raupiano pipe	FLOOR	170mm Concrete Slab	SNAP L100S - Cast In collar - Stack	-/240/240	90mm	FAR4019
Raupiano pipe	FLOOR	170mm Concrete Slab	SNAP L100S - Cast In collar - Stack	-/240/240	100mm	FAR4019
uPVC pipe	FLOOR	170mm Concrete Slab	SNAP LP100R - Cast In collar - Floorwaste & Shower	-/240/240	100mm	FAR3722
uPVC pipe	FLOOR	170mm Concrete Slab	SNAP LP100R - Cast In collar - Floorwaste & Shower	-/240/240	100mm	FP4428
uPVC pipe only (or with fitting)	FLOOR	170mm Concrete Slab	SNAP H150S - Cast In collar - Stack	-/240/240	150mm	FAR3528
uPVC pipe only (or with fitting)	FLOOR	170mm Concrete Slab	SNAP H150S - Cast In collar - Stack	-/240/240	150mm	FP4428
PE 11 pipe	FLOOR	175mm Concrete Slab	SNAP 125C - Cast In collar - Stack	-/240/240	125mm	FSP1367a
PE 11 pipe	FLOOR	175mm Concrete Slab	SNAP H150S - Cast In collar - Stack	-/240/180	160mm	FSP1367a
HDPE pipe	FLOOR	180mm Concrete Slab	SNAP 50R - Retrofit collar - Stack	-/240/240	50mm	FAR3933
HDPE pipe	FLOOR	180mm Concrete Slab	SNAP 63R - Retrofit collar - Stack	-/240/240	50mm	FAR3933
HDPE pipe	FLOOR	180mm Concrete Slab	SNAP LP50R - Retrofit collar - Stack	-/240/240	50mm	FAR3933
HDPE pipe	FLOOR	180mm Concrete Slab	SNAP 50R - Retrofit collar - Stack	-/240/240	56mm	FAR3933
HDPE pipe	FLOOR	180mm Concrete Slab	SNAP 63R - Retrofit collar - Stack	-/240/240	56mm	FAR3933
HDPE pipe	FLOOR	180mm Concrete Slab	SNAP 63R - Retrofit collar - Stack	-/240/240	63mm	FAR3933
HDPE pipe	FLOOR	180mm Concrete Slab	SNAP 65-80R - Retrofit collar - Stack	-/240/240	63mm	FAR3933
HDPE pipe	FLOOR	180mm Concrete Slab	SNAP 65-80R - Cast In collar - Stack	-/240/240	75mm	FAR3933
HDPE pipe	FLOOR	180mm Concrete Slab	SNAP 84R - Cast In collar - Stack	-/240/240	75mm	FAR3933
HDPE pipe	FLOOR	180mm Concrete Slab	SNAP 110R - Cast In collar - Stack	-/240/240	90mm	FAR3933
HDPE pipe	FLOOR	180mm Concrete Slab	SNAP HP100R - Cast In collar - Stack	-/240/240	110mm	FAR3933

NON-INSULATED COMBUSTIBLE PIPES

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
HDPE Silent pipe	FLOOR	180mm Concrete Slab	SNAP LP50R - Retrofit collar - Stack	-/240/240	50mm	FAR3933
uPVC pipe	FLOOR	180mm Concrete Slab	SNAP 63R - Cast In collar - Stack	-/240/240	65mm	FAR3933
uPVC pipe	FLOOR	180mm Concrete Slab	SNAP LP100R - Cast In collar - Stack	-/240/240	100mm	FAR3933
uPVC pipe only (or with fitting)	FLOOR	180mm Concrete Slab	SNAP LP50R - Retrofit collar - Stack	-/240/240	50mm	FAR3933
uPVC pipe only (or with fitting)	FLOOR	180mm Concrete Slab	SNAP 65-80R - Cast In collar - Stack	-/240/240	65mm	FAR3933
uPVC pipe only (or with fitting)	FLOOR	180mm Concrete Slab	SNAP 65-80R - Cast In collar - Stack	-/240/240	80mm	FAR3933
uPVC pipe only (or with fitting)	FLOOR	180mm Concrete Slab	SNAP 110R - Cast In collar - Stack	-/240/240	90mm	FAR3933
uPVC pipe only (or with fitting)	FLOOR	180mm Concrete Slab	SNAP HP150R - Cast In collar - Floorwaste & Shower	-/240/180	150mm	FSP1781
HDPE pipe	FLOOR	185mm Concrete Slab	SNAP H50FWS - Retrofit collar - Floorwaste & Shower	-./180/180	50mm	FAR3932
HDPE pipe	FLOOR	185mm Concrete Slab	SNAP H100FWS - Cast In collar - Floorwaste & Shower	-/240/240	63mm	FAR3932
HDPE pipe	FLOOR	185mm Concrete Slab	SNAP H100FWS - Cast In collar - Floorwaste & Shower	-/240/240	75mm	FAR3932
HDPE pipe	FLOOR	185mm Concrete Slab	SNAP H100FWS - Cast In collar - Floorwaste & Shower	-/240/240	90mm	FAR3932
HDPE Silent pipe	FLOOR	185mm Concrete Slab	SNAP H100FWS - Cast In collar - Floorwaste & Shower	-/240/240	110mm	FAR3932
HDPE Silent pipe	FLOOR	185mm Concrete Slab	SNAP L100FWS - Cast In collar - Floorwaste & Shower	-/240/240	110mm	FAR3932
uPVC pipe only (or with fitting)	FLOOR	185mm Concrete Slab	SNAP H100FWS - Retrofit collar - Floorwaste & Shower	-/240/240	50mm	FAR3932
uPVC pipe only (or with fitting)	FLOOR	185mm Concrete Slab	SNAP L100FWS - Retrofit collar - Floorwaste & Shower	-/240/240	50mm	FAR3932
uPVC pipe only (or with fitting)	FLOOR	185mm Concrete Slab	SNAP H100FWS - Cast In collar - Floorwaste & Shower	-/240/240	65mm	FAR3932
uPVC pipe only (or with fitting)	FLOOR	185mm Concrete Slab	SNAP L65FWS - Cast In collar - Floorwaste & Shower	-/240/240	65mm	FAR3932
uPVC pipe only (or with fitting)	FLOOR	185mm Concrete Slab	SNAP H100FWS - Cast In collar - Floorwaste & Shower	-/240/240	80mm	FAR3932
uPVC pipe only (or with fitting)	FLOOR	185mm Concrete Slab	SNAP L80FWS - Cast In collar - Floorwaste & Shower	-/240/240	80mm	FAR3932
uPVC pipe only (or with fitting)	FLOOR	185mm Concrete Slab	SNAP H100FWS - Cast In collar - Floorwaste & Shower	-/240/240	100mm	FAR3932
uPVC pipe only (or with fitting)	FLOOR	185mm Concrete Slab	SNAP H150S - Cast In collar - Floorwaste & Shower	-/240/240	100mm	FAR3932
uPVC pipe only (or with fitting)	FLOOR	185mm Concrete Slab	SNAP L100FWS - Cast In collar - Floorwaste & Shower	-/240/240	100mm	FAR3932
uPVC pipe	FLOOR	250mm Concrete Slab	SNAP 315C - Cast In collar - Stack	-/180/180	315mm	FCO2601
HDPE pipe	WALL	150mm Hebel block wall	SNAP HP100R - Cast In collar - Stack	-/240/240	110mm	FSP1659
HDPE pipe	WALL	150mm Hebel block wall	SNAP HP150R - Cast In collar	-/180/180	160mm	FSP1668
uPVC pipe	WALL	150mm Hebel block wall	SNAP LP50R - Retrofit collar - Stack	-/240/240	50mm	FSP1659
uPVC pipe	WALL	150mm Hebel block wall	SNAP HP100R - Cast In collar - Stack	-/240/240	100mm	FSP1659
uPVC pipe	WALL	150mm Hebel block wall	SNAP HP150R - Cast In collar - Stack	-/240/180	150mm	FSP1659
uPVC pipe	WALL	150mm Hebel block wall	SNAP HP250R-B - Cast In collar	-/180/180	250mm	FSP1668
CXL PX-AL-PX pipe	WALL	75mm Hebel Powerpanel	SNAP 32GAS - Retrofit collar	-/120/120	16mm	FSP1783
CXL PX-AL-PX pipe	WALL	75mm Hebel Powerpanel	SNAP 32GAS - Retrofit collar	-/120/120	20mm	FSP1822
CXL PX-AL-PX pipe	WALL	75mm Hebel Powerpanel	SNAP 32GAS - Retrofit collar	-/120/120	25mm	FSP1822
CXL PX-AL-PX pipe	WALL	75mm Hebel Powerpanel	SNAP 32GAS - Retrofit collar	-/120/120	32mm	FSP1822
CXL PX-AL-PX pipe only (or with fitting)	WALL	75mm Hebel Powerpanel	SNAP 50GAS - Retrofit collar	-/120/60	50mm	FSP1807

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
NON-INSULATED COMBUSTIBLE PIPES						
HDPE pipe	WALL	75mm Hebel Powerpanel	SNAP LP65R - Retrofit collar	-/120/90	40mm	FSP1783
HDPE pipe	WALL	75mm Hebel Powerpanel	SNAP LP65R - Cast In collar	-/120/90	63mm	FSP1807
HDPE pipe	WALL	75mm Hebel Powerpanel	SNAP LP100R-D - Cast In collar	-/120/120	75mm	FSP1807
HDPE pipe	WALL	75mm Hebel Powerpanel	SNAP LP100R-D - Cast In collar	-/120/120	110mm	FSP1783
HDPE pipe	WALL	75mm Hebel Powerpanel	SNAP HP150R - Cast In collar	-/120/120	160mm	FSP1822
PEX-B pipe	WALL	75mm Hebel Powerpanel	SNAP 32R - Retrofit collar	-/120/120	16mm	FSP1783
PEX-B pipe	WALL	75mm Hebel Powerpanel	SNAP 32R - Retrofit collar	-/120/120	20mm	FSP1807
PEX-B pipe	WALL	75mm Hebel Powerpanel	SNAP 32R - Retrofit collar	-/120/120	32mm	FSP1807
Raupiano pipe	WALL	75mm Hebel Powerpanel	SNAP LP65R - Retrofit collar	-/120/120	50mm	FSP1822
Raupiano pipe	WALL	75mm Hebel Powerpanel	SNAP LP100R-D - Cast In collar	-/120/120	110mm	FSP1822
uPVC pipe only (or with fitting)	WALL	75mm Hebel Powerpanel	SNAP LP65R - Retrofit collar	-/120/120	40mm	FSP1783
uPVC pipe only (or with fitting)	WALL	75mm Hebel Powerpanel	SNAP LP65R - Retrofit collar	-/120/120	50mm	FSP1783
uPVC pipe only (or with fitting)	WALL	75mm Hebel Powerpanel	SNAP LP65R - Cast In collar	-/120/90	65mm	FSP1783
uPVC pipe only (or with fitting)	WALL	75mm Hebel Powerpanel	SNAP LP100R-D - Cast In collar	-/120/90	80mm	FSP1807
uPVC pipe only (or with fitting)	WALL	75mm Hebel Powerpanel	SNAP LP100R-D - Cast In collar	-/120/90	100mm	FSP1783
uPVC pipe only (or with fitting)	WALL	75mm Hebel Powerpanel	SNAP HP150R - Cast In collar	-/120/120	150mm	FSP1807
HDPE pipe	WALL	78mm Speedpanel	SNAP LP50R - Retrofit collar	-/90/90	50mm	FSV1731
HDPE pipe	WALL	78mm Speedpanel	SNAP LP100R-C - Cast In collar	-/60/60	110mm	FSV1731
uPVC pipe	WALL	78mm Speedpanel	SNAP LP50R - Retrofit collar	-/120/120	40mm	FSV1731
uPVC pipe	WALL	78mm Speedpanel	SNAP LP50R - Retrofit collar	-/120/120	50mm	FSV1731
uPVC pipe	WALL	78mm Speedpanel	SNAP LP100R-C - Cast In collar	-/90/90	65mm	FSV1731
uPVC pipe	WALL	78mm Speedpanel	SNAP LP100R-C - Cast In collar	-/120/90	80mm	FSV1731
uPVC pipe	WALL	78mm Speedpanel	SNAP 110R - Cast In collar	-/120/90	100mm	FSV1731
uPVC pipe	WALL	78mm Speedpanel	SNAP LP100R-C - Cast In collar	-/60/60	100mm	FSV1731
uPVC pipe	WALL	78mm Speedpanel	SNAP HP150R - Cast In collar	-/120/90	150mm	FSV1731
HDPE pipe	WALL	Steel Frame, 1 x16mm Plasterboard	SNAP 50R - Retrofit collar	-/90/60	40mm	FP5663
HDPE pipe	WALL	Steel Frame, 1 x16mm Plasterboard	SNAP 110R - Cast In collar	-/90/60	110mm	FP5663
PEX-A pipe	WALL	Steel Frame, 1 x16mm Plasterboard	SNAP 32R - Retrofit collar	-/120/90	16mm	FSP1723
PEX-A pipe	WALL	Steel Frame, 1 x16mm Plasterboard	SNAP 32R - Retrofit collar	-/120/90	20mm	FSP1723
PEX-A pipe	WALL	Steel Frame, 1 x16mm Plasterboard	SNAP 32R - Retrofit collar	-/120/60	25mm	FSP1723
PEX-A pipe	WALL	Steel Frame, 1 x16mm Plasterboard	SNAP 32R - Retrofit collar	-/120/60	32mm	FSP1723
PEX-B pipe	WALL	Steel Frame, 1 x16mm Plasterboard	SNAP 32R - Retrofit collar	-/120/60	16mm	FSP1723
PEX-B pipe	WALL	Steel Frame, 1 x16mm Plasterboard	SNAP 32R - Retrofit collar	-/120/60	20mm	FSP1723
PEX-B pipe	WALL	Steel Frame, 1 x16mm Plasterboard	SNAP 32R - Retrofit collar	-/120/60	25mm	FSP1723
PEX-B pipe	WALL	Steel Frame, 1 x16mm Plasterboard	SNAP 32R - Retrofit collar	-/120/60	32mm	FSP1723

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
NON-INSULATED COMBUSTIBLE PIPES						
P-PVC pipe	WALL	Steel Frame, 1 x16mm Plasterboard	SNAP 32R - Retrofit collar	-/120/60	15mm	FSP1723
P-PVC pipe	WALL	Steel Frame, 1 x16mm Plasterboard	SNAP 32R - Retrofit collar	-/90/60	25mm	FP5663
Rifeng PX-AL-PX pipe	WALL	Steel Frame, 1 x16mm Plasterboard	SNAP 32GAS - Retrofit collar	-/90/60	20mm	FP5663
uPVC pipe	WALL	Steel Frame, 1 x16mm Plasterboard	SNAP 50R - Retrofit collar	-/90/60	40mm	FP5663
uPVC pipe	WALL	Steel Frame, 1 x16mm Plasterboard	SNAP 50R - Retrofit collar	-/90/60	50mm	FP5663
uPVC pipe	WALL	Steel Frame, 1 x16mm Plasterboard	SNAP 63R - Cast In collar	-/90/60	65mm	FP5663
uPVC pipe	WALL	Steel Frame, 1 x16mm Plasterboard	SNAP 65-80R - Cast In collar	-/90/60	80mm	FP5663
uPVC pipe	WALL	Steel Frame, 1 x16mm Plasterboard	SNAP 110R - Cast In collar	-/90/60	100mm	FP5663
C-PVC pipe	WALL	Steel Frame, 2x13mm Plasterboard	SNAP 50R - Retrofit collar	-/120/120	1.25 inch	FSP1748
PEX-AL pipe	WALL	Steel Frame, 2x13mm Plasterboard	SNAP 32GAS - Retrofit collar	-/180/180	15mm	FSP1759
PEX-AL pipe	WALL	Steel Frame, 2x13mm Plasterboard	SNAP 32R - Retrofit collar	-/180/120	15mm	FSP1759
PEX-AL pipe	WALL	Steel Frame, 2x13mm Plasterboard	SNAP 32GAS - Retrofit collar	-/180/120	20mm	FSP1759
PEX-AL pipe	WALL	Steel Frame, 2x13mm Plasterboard	SNAP 32R - Retrofit collar	-/180/90	20mm	FSP1759
PEX-AL pipe	WALL	Steel Frame, 2x13mm Plasterboard	SNAP 32GAS - Retrofit collar	-/180/120	26mm	FSP1759
PEX-AL pipe	WALL	Steel Frame, 2x13mm Plasterboard	SNAP 50GAS - Retrofit collar	-/180/120	32mm	FSP1759
PEX-AL pipe	WALL	Steel Frame, 2x13mm Plasterboard	SNAP 50GAS - Retrofit collar	-/180/120	40mm	FSP1759
PEX-AL pipe	WALL	Steel Frame, 2x13mm Plasterboard	SNAP 50GAS - Retrofit collar	-/180/90	50mm	FSP1759
PEX-AL pipe	WALL	Steel Frame, 2x13mm Plasterboard	SNAP 63GAS - Retrofit collar	-/180/60	63mm	FSP1759
P-PVC pipe	WALL	Steel Frame, 2x13mm Plasterboard	SNAP 32R - Retrofit collar	-/120/120	15mm	FSP1748
P-PVC pipe	WALL	Steel Frame, 2x13mm Plasterboard	SNAP 50R - Retrofit collar	-/120/120	32mm	FSP1748
PVC Flexi pipe	WALL	Steel Frame, 2x13mm Plasterboard	SNAP 32R - Retrofit collar	-/120/120	16mm	FSP1748
uPVC pipe	WALL	Steel Frame, 2x13mm Plasterboard	SNAP 110R - Cast In collar	-/120/120	100mm	FSP1748
HDPE pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 50R - Retrofit collar	-/180/180	40mm	FP4874
HDPE pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 50R - Retrofit collar	-/180/120	50mm	FAR3929
HDPE pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 63R - Retrofit collar	-/180/120	50mm	FAR3929
HDPE pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 50R - Retrofit collar	-/180/120	56mm	FAR3929
HDPE pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 63R - Retrofit collar	-/180/120	56mm	FAR3929
HDPE pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 63R - Retrofit collar	-/180/120	63mm	FAR3929
HDPE pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 65-80R - Cast In collar	-/180/120	75mm	FAR3929
HDPE pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 84R - Cast In collar	-/180/120	75mm	FAR3929
HDPE pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 65-80R - Cast In collar	-/180/120	90mm	FAR3929
HDPE pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 110R - Cast In collar	-/180/120	110mm	FP4874
HDPE pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP HP150R - Cast In collar	-/120/120	160mm	FSP1716
IPLEX PE-AL-PE pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32GAS - Retrofit collar	-/180/180	16mm	FSP1341
IPLEX PE-AL-PE pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32GAS - Retrofit collar	-/180/180	20mm	FCO2718

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
NON-INSULATED COMBUSTIBLE PIPES						
HDPE pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 110R - Cast In collar	-/180/120	110mm	FP4874
HDPE pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP HP150R - Cast In collar	-/120/120	160mm	FSP1716
IPLEX PE-AL-PE pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32GAS - Retrofit collar	-/180/180	16mm	FSP1341
IPLEX PE-AL-PE pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32GAS - Retrofit collar	-/180/180	20mm	FCO2718
IPLEX PE-AL-PE pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32GAS - Retrofit collar	-/180/180	25mm	FCO2718
IPLEX PE-AL-PE pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32GAS - Retrofit collar	-/180/120	32mm	FSP1341
IPLEX PE-AL-PE pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 50GAS - Retrofit collar	-/180/120	32mm	FCO2718
IPLEX PE-AL-PE pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 50GAS - Retrofit collar	-/180/120	40mm	FCO2718
IPLEX PE-AL-PE pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 50GAS - Retrofit collar	-/180/120	50mm	FSP1341
PE 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32R - Retrofit collar	-/180/180	20mm	FSP1366
PE 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 50R - Retrofit collar	-/180/180	20mm	FSP1366
PE 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 63R - Retrofit collar	-/180/180	20mm	FSP1366
PE 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32R - Retrofit collar	-/180/180	25mm	FAR3929
PE 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 50R - Retrofit collar	-/180/180	25mm	FAR3929
PE 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 63R - Retrofit collar	-/180/180	25mm	FAR3929
PE 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32R - Retrofit collar	-/180/180	32mm	FSP1366
PE 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 50R - Retrofit collar	-/180/180	32mm	FAR3929
PE 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 63R - Retrofit collar	-/180/180	32mm	FAR3929
PE 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 50R - Retrofit collar	-/180/180	40mm	FAR3929
PE 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 63R - Retrofit collar	-/180/180	40mm	FAR3929
PE 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 50R - Retrofit collar	-/180/180	50mm	FSP1366
PE 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 63R - Retrofit collar	-/180/180	50mm	FAR3929
PE 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 63R - Retrofit collar	-/180/180	63mm	FSP1366
PEX-A pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32R - Retrofit collar	-/180/120	16mm	FSP1634
PEX-A pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32R - Retrofit collar	-/180/180	20mm	FSP1634
PEX-A pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32R - Retrofit collar	-/180/180	25mm	FSP1634
PEX-A pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32R - Retrofit collar	-/180/90	25mm	FSP1634
PEX-A pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32R - Retrofit collar	-/180/180	32mm	FSP1716
PEX-A pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32R - Retrofit collar	-/180/90	32mm	FSP1634
PEX-B pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32R - Retrofit collar	-/180/180	16mm	FSP1634
PEX-B pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32R - Retrofit collar	-/180/180	20mm	FSP1634
PEX-B pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32R - Retrofit collar	-/180/120	25mm	FSP1634
PEX-B pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32R - Retrofit collar	-/180/120	32mm	FSP1634
PPR 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32R - Retrofit collar	-/180/180	20mm	FSP1360
PPR 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 50R - Retrofit collar	-/180/180	20mm	FSP1360

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
NON-INSULATED COMBUSTIBLE PIPES						
PPR 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 63R - Retrofit collar	-/180/180	20mm	FSP1360
PPR 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32R - Retrofit collar	-/180/180	25mm	FAR3929
PPR 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 50R - Retrofit collar	-/180/180	25mm	FAR3929
PPR 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 63R - Retrofit collar	-/180/180	25mm	FAR3929
PPR 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32R - Retrofit collar	-/180/180	32mm	FSP1360
PPR 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 50R - Retrofit collar	-/180/180	32mm	FAR3929
PPR 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 63R - Retrofit collar	-/180/180	32mm	FAR3929
PPR 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 50R - Retrofit collar	-/180/180	40mm	FAR3929
PPR 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 63R - Retrofit collar	-/180/180	40mm	FAR3929
PPR 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 50R - Retrofit collar	-/180/180	50mm	FSP1360
PPR 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 63R - Retrofit collar	-/180/180	50mm	FAR3929
PPR 7.4 pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 63R - Retrofit collar	-/180/180	63mm	FSP1360
Progef pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32R - Retrofit collar	-/180/180	20mm	FSP1658
Progef pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32R - Retrofit collar	-/180/180	25mm	FSP1658
Progef pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32R - Retrofit collar	-/180/180	32mm	FSP1658
Progef pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32R - Retrofit collar	-/180/180	40mm	FSP1658
Progef pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 50R - Retrofit collar	-/180/180	50mm	FSP1658
Progef pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 63R - Retrofit collar	-/180/180	63mm	FSP1658
Raupiano pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 50R - Retrofit collar	-/180/180	40mm	FSP1716
Raupiano pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 110R - Cast In collar	-/180/180	110mm	FSP1716
REHAU PX-AL-PE pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32GAS - Retrofit collar	-/180/180	16mm	FSP1341
REHAU PX-AL-PE pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 50GAS - Retrofit collar	-/180/180	40mm	FSP1341
Rifeng PX-AL-PX pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32GAS - Retrofit collar	-/180/180	16mm	FCO2719
Rifeng PX-AL-PX pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32GAS - Retrofit collar	-/180/180	20mm	FCO2719
Rifeng PX-AL-PX pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32GAS - Retrofit collar	-/180/180	25mm	FCO2719
Rifeng PX-AL-PX pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 32GAS - Retrofit collar	-/180/180	32mm	FCO2719
Rifeng PX-AL-PX pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 50GAS - Retrofit collar	-/180/180	32mm	FSP1341
Rifeng PX-AL-PX pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 50GAS - Retrofit collar	-/180/120	40mm	FCO2719
Rifeng PX-AL-PX pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 50GAS - Retrofit collar	-/180/120	50mm	FCO2719
uPVC pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 50R - Retrofit collar	-/180/120	40mm	FAR3929
uPVC pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 50R - Retrofit collar	-/180/120	40mm	FP4874
uPVC pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 50R - Retrofit collar	-/180/120	50mm	FAR3929
uPVC pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 63R - Retrofit collar	-/180/120	50mm	FAR3929
uPVC pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 63R - Retrofit collar	-/180/120	50mm	FP4874
uPVC pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 63R - Cast In collar	-/180/120	65mm	FAR3929

Service Penetration	Orientation	Substrate	System Description	FRR	Specimen Size	Report Ref.
NON-INSULATED COMBUSTIBLE PIPES						
uPVC pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 84R - Cast In collar	-/180/120	65mm	FP4874
uPVC pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 65-80R - Cast In collar	-/180/120	80mm	FP4874
uPVC pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 84R - Cast In collar	-/180/120	80mm	FAR3929
uPVC pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 65-80R - Cast In collar	-/180/120	90mm	FAR3929
uPVC pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 110R - Cast In collar	-/180/180	100mm	FP4874
uPVC pipe	WALL	Steel Frame, 2x16mm Plasterboard	SNAP HP150R - Cast In collar	-/120/120	150mm	FSP1716
uPVC pipe only (or with fitting)	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 50R - Retrofit collar	-/180/180	40mm	FP4874
uPVC pipe only (or with fitting)	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 65-80R - Cast In collar	-/180/120	65mm	FAR3929
uPVC pipe only (or with fitting)	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 84R - Cast In collar	-/180/120	65mm	FAR3929
uPVC pipe only (or with fitting)	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 65-80R - Cast In collar	-/180/120	80mm	FAR3929
uPVC pipe only (or with fitting)	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 110R - Cast In collar	-/180/120	90mm	FAR3929
uPVC pipe only (or with fitting)	WALL	Steel Frame, 2x16mm Plasterboard	SNAP 110R - Cast In collar	-/180/120	100mm	FP4874
ELECTRICAL PENETRATION SERVICES						
PVC Conduit	FLOOR	150mm Concrete Slab	SNAP 32R - Retrofit collar - Stack	-/240/240	20mm	FSP1781
PVC Conduit	FLOOR	150mm Concrete Slab	SNAP 32R - Retrofit collar - Stack	-/240/240	20mm	FSP1781
PVC Conduit	FLOOR	150mm Concrete Slab	SNAP 32R - Retrofit collar - Stack	-/240/240	25mm	FSP1781
PVC Conduit	FLOOR	150mm Concrete Slab	SNAP 32R - Retrofit collar - Stack	-/240/240	25mm	FSP1781
PVC Conduit	WALL	75mm Hebel Powerpanel	SNAP 32R - Retrofit collar	-/120/120	20mm	FSP1783
PVC Conduit	WALL	75mm Hebel Powerpanel	SNAP 32R - Retrofit collar	-/120/120	25mm	FSP1807
PVC Conduit	WALL	Steel Frame, 1 x16mm Plasterboard	SNAP 32R - Retrofit collar	-/90/60	25mm	FP5663
PVC Conduit	WALL	Steel Frame, 2x13mm Plasterboard	SNAP 32R - Retrofit collar	-/120/120	20mm	FSP1748
PVC Conduit	WALL	Steel Frame, 2x13mm Plasterboard	SNAP 32R - Retrofit collar	-/120/120	20mm	FSP1748
PVC Conduit	WALL	Steel Frame, 2x13mm Plasterboard	SNAP 32R - Retrofit collar	-/120/120	25mm	FSP1748
PVC Conduit	WALL	Steel Frame, 2x13mm Plasterboard	SNAP 32R - Retrofit collar	-/120/120	25mm	FSP1748

Section B: Non-FPA Members

Section B: Fire Stopping Products/Solutions
Non-FPA Member Companies

❱ **LORIENT PTY LTD**

LORIENT PTY LTD

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The products listed in this register have all been tested to AS1530.4-2005 or Assessed to AS 4072.1-2005 as referenced within the New Zealand Building Code.

Service Penetration	Orientation	Substrate	System Description	FRR	Test Dims	Report Ref.	ID Ref.
INTUMESCENT FIRE DAMPERS							
Sheet metal duct	Vertical (Wall)	Masonry or Concrete wall 2hr performance	Lorient LVH44 Intumescent fire damper - Duct to duct - angles fitted to both sides	-/120/60	1200 x 2400mm	CSIRO FCO 3127	Wall 1
Sheet metal duct	Vertical (Wall)	Masonry or Concrete wall 2hr performance	Lorient LVH44 Intumescent fire damper - Duct to duct - angles fitted to one side	-/120/60	1200 x 2400mm	CSIRO FCO 3127	Wall 2
Sheet metal duct	Vertical (Wall)	Masonry or Concrete wall 2hr performance	Lorient LVH44 Intumescent fire damper - Duct to grille	-/120/60	1200 x 2400mm	CSIRO FCO 3127	Wall 3
Sheet metal duct	Vertical (Wall)	Masonry or Concrete wall 2hr performance	Lorient LVH44 Intumescent fire damper - Duct to duct - fitted tight to slab	-/120/60	1200 x 2400mm	CSIRO FCO 3127	Wall 4
Sheet metal duct	Vertical (Wall)	Masonry or Concrete wall 2hr performance	Lorient LVH44 Intumescent fire damper - Duct to duct - fitted tight to wall	-/120/60	1200 x 2400mm	CSIRO FCO 3127	Wall 5
Sheet metal duct	Vertical (Wall)	Masonry or Concrete wall (min 90mm thick) for 60min , 90min or 120min performance	Lorient LVH44C Circular intumescent fire damper - Duct to duct angles fitted to one side	-/60/60 -/90/60 -/120/60	Ø100 to Ø450	EXOVA EWFA 33233400.6	Wall 6
Sheet metal duct	Vertical (Wall)	CSR Hebel wall (min 75mm thick) 60min , 90min or 2hr performance	Lorient LVH44 Intumescent fire damper - Duct to duct angles fitted to one side	-/60/60 -/90/60 -/120/60	450 x 450mm	EXOVA EWFA 33233400.6	Wall 7
Sheet metal duct	Vertical (Wall)	CSR Hebel wall (min 75mm thick) 60min , 90min or 2hr performance	Lorient LVH44 Intumescent fire damper - Duct to duct - angles fitted one side	-/60/60 -/90/60 -/120/60	450 x 450mm	EXOVA EWFA 33233400.6	Wall 8
Sheet metal duct	Vertical (Wall)	CSR Hebel wall (min 75mm thick) 60min , 90min or 2hr performance	Lorient LVH44C Circular intumescent fire damperCSR Hebel + cavity stud wall) 60min , 90min or 2hr performance	-/60/60 -/90/60 -/120/60 -	"Ø100 to Ø450 "	EXOVA EWFA 33233400.6	Wall 9
Sheet metal duct	Vertical (Wall)	CSR Hebel + cavity stud wall) 60min , 90min or 2hr performance	Lorient LVH44 Intumescent fire damper - Duct to duct - angles fitted one side	-/60/60 -/90/60 -/120/60	450 x 450mm	EXOVA EWFA 33233400.6	Wall 10
Sheet metal duct	Vertical (Wall)	CSR Hebel + cavity stud wall) 60min , 90min or 2hr performance	Lorient LVH44C Circular intumescent fire damper - Duct to duct - angles fitted one side	-/60/60 -/90/60 -/120/60	Ø100 to Ø450	EXOVA EWFA 33233400.6	Wall 11
Sheet metal duct	Vertical (Wall)	CSR Hebel wall (min 75mm thick) 60min , 90min or 2hr performance	Lorient LVH44 Intumescent fire damper - Duct to duct - fitted tight to slab	Up to -/120/60	450 x 450mm	EXOVA EWFA 33233400.6	Wall 12

NOT YET APPROVED FOR RELEASE

Service Penetration	Orientation	Substrate	System Description	FRR	Test Dims	Report Ref.	ID Ref.
INTUMESCENT FIRE DAMPERS							
Sheet metal duct	Vertical (Wall)	Lightweight Steel Framed Single layer 13mm fire rated plasterboard Wall - 1hr	Lorient LVH44C Circular intumescent fire damper - Duct to duct fixing angles one side	-/60/60	Ø100 to Ø450	Exova EWFA 33233400.6	Studwall 1
Sheet metal duct	Vertical (Wall)	Lightweight Steel Framed Single layer 13mm fire rated plasterboard Wall - 1hr	Lorient LVH44 Intumescent fire damper - Duct to duct fixing angles both sides	-/60/60	450 x 450mm	Exova EWFA 33233400.6	Studwall 2
Sheet metal duct	Vertical (Wall)	Lightweight Steel Framed Single layer 16mm fire rated plasterboard Wall - 90min	Lorient LVH44 Intumescent fire damper - Duct to duct fixing angles both sides	-/90/60	450 x 450mm	EXOVA EWFA 33233400.6	Studwall 3
Sheet metal duct	Vertical (Wall)	Lightweight Steel Framed Single layer 16mm fire rated plasterboard Wall - 90min	Lorient LVH44C Circular intumescent fire damper - Duct to duct fixing angles one side	-/90/60	Ø100 to Ø450	EXOVA EWFA 33233400.6	Studwall 4
Sheet metal duct	Vertical (Wall)	Lightweight Steel Framed double layer 13mm fire rated plasterboard Wall - 2hr	Lorient LVH44 Intumescent fire damper - Duct to duct fixing angles both sides	-/120/60	450 x 450mm	Exova EWFA 33233400.6	Studwall 5
Sheet metal duct	Vertical (Wall)	Lightweight Steel Framed double layer 13mm fire rated plasterboard Wall - 2hr	Lorient LVH44C Circular intumescent fire damper - Duct to duct fixing angles one side	-/120/60	Ø100 to Ø450	Exova EWFA 33233400.6	Studwall 6
Sheet metal duct	Vertical (Wall)	Lightweight Steel Framed double layer 16mm fire rated plasterboard Wall - 2hr	Lorient LVH44C Circular intumescent fire damper - Duct to duct fixing angles one side	-/120/60	Ø100 to Ø450	Exova EWFA 33233400.6	Studwall 7
Sheet metal duct	Vertical (Wall)	Lightweight Timber Framed Single layer 13mm fire rated plasterboard Wall - 1hr	Lorient LVH44 Intumescent fire damper - Duct to duct fixing angles both sides	-/60/60	450 x 450mm	Exova EWFA 33233400.6	Studwall 14
Sheet metal duct	Vertical (Wall)	Lightweight Timber Framed Single layer 13mm fire rated plasterboard Wall - 1hr	Lorient LVH44 Intumescent fire damper - Duct to duct fixing angles both sides	-/60/60	450 x 450mm	Exova EWFA 33233400.6	Studwall 15
Sheet metal duct	Vertical (Wall)	Lightweight Timber Framed 2 x layer 13mm fire rated plasterboard Wall - 2hr	Lorient LVH44 Intumescent fire damper - Duct to duct fixing angles both sides	-/120/60	450 x 450mm	Exova EWFA 33233400.6	Studwall 16
Sheet metal duct	Vertical (Wall)	Lightweight Steel Framed Single layer 13mm fire rated plasterboard Wall - 1hr	Lorient LVH44 Intumescent fire damper - Duct to duct Tight to slab	-/60/60	450 x 450mm	Exova EWFA 33233400.6	Studwall 18
Sheet metal duct	Vertical (Wall)	Lightweight Steel Framed Single layer 16mm fire rated plasterboard Wall - 90min	Lorient LVH44 Intumescent fire damper - Duct to duct Tight to slab	-/90/60	450 x 450mm	Exova EWFA 33233400.6	Studwall 19
Sheet metal duct	Vertical (Wall)	Lightweight Steel Framed 2 x layer 13mm fire rated plasterboard Wall - 2hr	Lorient LVH44 Intumescent fire damper - Duct to duct Tight to slab	-/120/60	450 x 450mm	Exova EWFA 33233400.6	Studwall 20
Sheet metal duct	Vertical (Wall)	Lightweight 25mm shaftwall liner with 16mm fire rated plasterboard Wall - 2hr	Lorient LVH44 Intumescent fire damper - Duct to duct fixing angles one side	-/120/-	600 x 600mm	CSIRO FCO 3149	Shaftwall 1
Sheet metal duct	Vertical (Wall)	Lightweight 25mm shaftwall liner with 2 x 16mm fire rated plasterboard Wall - 2hr	Lorient LVH44 Intumescent fire damper - Duct to duct fixing angles one side	-/120/-	600 x 600mm	CSIRO FCO 3149	Shaftwall 2
Sheet metal duct	Vertical (Wall)	Lightweight 25mm shaftwall liner with 2 x 13mm fire rated plasterboard Wall - 2hr	Lorient LVH44 Intumescent fire damper - Duct to duct fixing angles one side	-/120/-	600 x 600mm	CSIRO FCO 3149	Shaftwall 3
Sheet metal duct	Vertical (Wall)	3 x 13mm or 3 x 16mm Fire rated plasterboard laminated shaftwall	Lorient LVH44C Circular intumescent fire damper - Duct to duct fixing angles one side	-/120/-	Ø100 to Ø450	Exova EWFA 33233400.6	Shaftwall 4
Sheet metal duct	Vertical (Wall)	3 x 13mm or 3 x 16mm Fire rated plasterboard laminated shaftwall	Lorient LVH44 Intumescent fire damper - Duct to duct fixing angles one side	-/120/-	450 x 450mm	Exova EWFA 33233400.6	Shaftwall 5
Sheet metal duct	Vertical (Wall)	Masonry or Concrete shaft wall up to 2hr performance	Lorient LVH44 or LVH44C Intumescent fire damper - Duct to riser - angle free	-/60/60 -/90/60 -/120/60 -	450 x 450mm or Ø100 to Ø450	Exova EWFA 33233400.6	Angle free 1

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Service Penetration	Orientation	Substrate	System Description	FRR	Test Dims	Report Ref.	ID Ref.
INTUMESCENT FIRE DAMPERS							
Sheet metal duct	Vertical (Wall)	CSR Hebel shaft wall (min 75mm thick) 60min, 90min or 2hr performance	Lorient LVH44 or LVH44C Intumescent fire damper - Duct to riser - angle free	-/60/60 -/90/60 -/120/60 -	450 x 450mm or Ø100 to Ø450	Exova EWFA 33233400.6	Angle free 2
Sheet metal duct	Vertical (Wall)	Lightweight Timber Framed Single layer 13mm fire rated plasterboard Wall - 1hr	Lorient LVH44 or LVH44C Intumescent fire damper - Duct to riser - angle free	-/60/60	450 x 450mm	Exova EWFA 33233400.6	Angle free 3
Sheet metal duct	Vertical (Wall)	Lightweight Timber Framed Single layer 16mm fire rated plasterboard Wall - 90 min	Lorient LVH44 Intumescent fire damper - Duct to riser - angle free	-/90/60 -/120/60	450 x 450mm	Exova EWFA 33233400.6	Angle free 4
Sheet metal duct	Vertical (Wall)	Lightweight Steel Framed double layer 13mm or 16mm fire rated plasterboard Wall - 2hr	Lorient LVH44 Intumescent fire damper - Duct to riser - angle free	-/120/60	450 x 450mm	Exova EWFA 33233400.6	Angle free 5
Sheet metal duct	Vertical (Wall)	3 x 13mm or 3 x 16mm Fire rated plasterboatd laminated shaftwall	Lorient LVH44 Intumescent fire damper - Duct to riser - angle free	-/120/-	450 x 450mm or Ø100 to Ø450	Exova EWFA 33233400.6	Angle free 6
Sheet metal duct	Vertical (Wall)	Lightweight 25mm shaftwall liner with 2 x 13mm or 2 x 16mm fire rated plasterboard Wall - 2hr	Lorient LVH44 or LVH44C Intumescent fire damper - Duct to riser - angle free	-/90/60 -/120/60	450 x 450mm	Exova EWFA 33233400.6	Angle free 7
Sheet metal duct	Vertical (Wall)	Masonry or Concrete shaft wall up to 2hr performance	Lorient LVH44 Intumescent fire damper - Duct to riser - angle free tight to slab	-/60/60 -/90/60 -/120/60 -	450 x 450mm	Exova EWFA 33233400.6	Angle free 8
Sheet metal duct	Vertical (Wall)	CSR Hebel shaft wall (min 75mm thick) 60min, 90min or 2hr performance	Lorient LVH44 Intumescent fire damper - Duct to riser - angle free tight to slab	-/60/60 -/90/60 -/120/60 -	450 x 450mm	Exova EWFA 33233400.6	Angle free 9
Sheet metal duct	Vertical (Wall)	Lightweight Timber Framed Single layer 13mm fire rated plasterboard Wall - 1hr	Lorient LVH44 Intumescent fire damper - Duct to riser - angle free tight to slab	-/60/60	450 x 450mm	Exova EWFA 33233400.6	Angle free 10
Sheet metal duct	Vertical (Wall)	Lightweight Timber Framed Single layer 16mm fire rated plasterboard Wall - 90 min	Lorient LVH44 Intumescent fire damper - Duct to riser - angle free tight to slab	-/90/60 -/120/60	450 x 450mm	Exova EWFA 33233400.6	Angle free 11
Sheet metal duct	Vertical (Wall)	Lightweight Steel Framed double layer 13mm or 16mm fire rated plasterboard Wall - 2hr	Lorient LVH44 Intumescent fire damper - Duct to riser - angle free tight to slab	-/120/60	450 x 450mm	Exova EWFA 33233400.6	Angle free 12
Sheet metal duct	Vertical (Wall)	Lightweight 25mm shaftwall liner with 2 x 13mm or 2 x 16mm fire rated plasterboard Wall - 2hr	Lorient LVH44 Intumescent fire damper - Duct to riser - angle free tight to slab	-/90/60 -/120/60	450 x 450mm	Exova EWFA 33233400.6	Angle free 13
Sheet metal duct	Vertical (Wall)	51mm or 64mm or 78mm Speedpanel wall	Lorient LVH44 Intumescent fire damper - Duct to duct fixing angles both sides	-/120/-	1000 x 1000mm	Exova EWFA RIR 21622	Speedpanel 1
Sheet metal duct	Vertical (Wall)	51mm or 64mm or 78mm Speedpanel wall	Lorient LVH44 Intumescent fire damper - Duct to duct fixing angles both sides	-/60/60 -/90/60 -/120/60	450 x 450mm	Exova EWFA 33233400.6	Speedpanel 2
Sheet metal duct	Vertical (Wall)	51mm or 64mm or 78mm Speedpanel wall	Lorient LVH44 Intumescent fire damper - Duct to duct fixing angles one side	-/60/60 -/90/60 -/120/60	450 x 450mm	Exova EWFA 33233400.6	Speedpanel 3
Sheet metal duct	Vertical (Wall)	51mm or 64mm or 78mm Speedpanel wall	Lorient LVH44C Circular intumescent fire damper - Duct to duct fixing angles one side	-/60/60 -/90/60 -/120/60	Ø100 to Ø450	Exova EWFA 33233400.6	Speedpanel 4
Protecting open aperture	Vertical (Wall)	78mm Speedpanel wall	Lorient LVH44 intumescent air transfer grille- wall mounted brackets fixed one side	-/120/30	450 x 450mm	Exova EWFA 33090200	Speedpanel 5

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Service Penetration	Orientation	Substrate	System Description	FRR	Test Dims	Report Ref.	ID Ref.
INTUMESCENT FIRE DAMPERS							
Sheet metal duct	Vertical (Wall)	Prontopanel wall 60m thick	Lorient LVH44 Intumescent fire damper- Duct to duct fixing angles both sides	-/60/60	450 x 450mm	Exova EWFA 33233400.6	Prontopanel 1
Sheet metal duct	Vertical (Wall)	Prontopanel wall 60m thick	Lorient LVH44C Circular Intumescent fire damper - Duct to duct fixing angles one side	-/60/60 -/90/60 -/120/60	Ø100 to Ø450	Exova EWFA 33233400.6	Prontopanel 2
Sheet metal duct	Vertical (Wall)	Prontopane cavity wall with 13mm fire rated plasterboard	Lorient LVH44 Intumescent fire damper - Duct to duct fixing angles both sides	-/120/60	450 x 450mm	Exova EWFA 33233400.6	Prontopanel 3
Sheet metal duct	Vertical (Wall)	Prontopanel cavity wall with 13mm fire rated plasterboard	Lorient LVH44C Circular intumescent fire damper -Duct to duct fixing angles one side	-/120/60	Ø100 to Ø450	Exova EWFA 33233400.6	Prontopanel 4
Sheet metal duct	Vertical (Wall)	Prontopanel cavity wall with 13mm fire rated plasterboard	Lorient LVH44 Intumescent fire damper - Duct to duct fixing angles one side	-/120/60	450 x 450mm	Exova EWFA 33233400.6	Prontopanel 5
Sheet metal duct	Vertical (Wall)	Prontopanel cavity wall with 13mm fire rated plasterboard	Lorient LVH44C Circular intumescent fire damper - Duct to duct fixing angles one side	-/120/60	Ø100 to Ø450	Exova EWFA 33233400.6	Prontopanel 6
Sheet metal duct	Vertical (Wall)	Prontopanel cavity wall with 13mm fire rated plasterboard	Lorient LVH44 Intumescent fire damper - Duct to riser	-/120/60	450 x 450mm	Exova EWFA 33233400.6	Prontopanel 7
Sheet metal duct	Vertical (Wall)	Prontopanel cavity wall with 13mm fire rated plasterboard	Lorient LVH44 Intumescent fire damper Duct to riser - tight to slab	-/120/60	450 x 450mm	Exova EWFA 33233400.6	Prontopanel 8
Sheet metal duct	Vertical (Wall)	Prontopanel cavity wall with 13mm fire rated plasterboard	Lorient LVH44C Circular intumescent fire damper - Duct to riser	-/120/60	Ø100 to Ø450	Exova EWFA 33233400.6	Prontopanel 9
Sheet metal duct	Vertical (Wall)	Xlam CLT timber walls 60min to 120min performance	Lorient LVH44 Intumescent fire damper - Duct to duct fixing angles both sides	-/60/60 -/90/60 -/120/60	not to exceed 0.2sqm	Exova EWFA 33233400.6	Xlam 1
Sheet metal duct	Vertical (Wall)	Xlam CLT timber walls 60min to 120min performance	Lorient LVH44 Intumescent fire damper - Duct to duct fixing angles one side	-/60/60 -/90/60 -/120/60	not to exceed 0.2sqm	Exova EWFA 33233400.6	Xlam 2
Sheet metal duct	Vertical (Wall)	Prontopanel cavity wall with 13mm fire rated plasterboard	Lorient LVH44 Intumescent fire damper - Duct to riser	-/120/60	450 x 450mm	Exova EWFA 33233400.6	Prontopanel 7
Sheet metal duct	Vertical (Wall)	Prontopanel cavity wall with 13mm fire rated plasterboard	Lorient LVH44 Intumescent fire damper Duct to riser - tight to slab	-/120/60	450 x 450mm	Exova EWFA 33233400.6	Prontopanel 8
Sheet metal duct	Vertical (Wall)	Prontopanel cavity wall with 13mm fire rated plasterboard	Lorient LVH44C Circular intumescent fire damper - Duct to riser	-/120/60	Ø100 to Ø450	Exova EWFA 33233400.6	Prontopanel 9
Sheet metal duct	Vertical (Wall)	Xlam CLT timber walls 60min to 120min performance	Lorient LVH44 Intumescent fire damper - Duct to duct fixing angles both sides	-/60/60 -/90/60 -/120/60	not to exceed 0.2sqm	Exova EWFA 33233400.6	Xlam 1
Sheet metal duct	Vertical (Wall)	Xlam CLT timber walls 60min to 120min performance	Lorient LVH44 Intumescent fire damper - Duct to duct fixing angles one side	-/60/60 -/90/60 -/120/60	not to exceed 0.2sqm	Exova EWFA 33233400.6	Xlam 2

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Service Penetration	Orientation	Substrate	System Description	FRR	Test Dims	Report Ref.	ID Ref.
INTUMESCENT FIRE DAMPERS							
Protecting open aperture	Vertical (Wall)	Intubatt bulkhead overlapping masonry or concrete wall 2 hr	Lorient LVH44 Intumescent fire damper Installed in TBA Firefly Intubatt board	-/120/-	450 x 450mm	Exova EWFA RIR3488500	TBA Intubatt 1
Protecting open aperture	Vertical (Wall)	Intubatt bulkhead installed in lightweight steel frame fire rated plasterboard wall 2 hr	Lorient LVH44 Intumescent fire damper- Installed in TBA Firefly Intubatt board	-/120/-	450 x 450mm	Exova EWFA RIR3488500	TBA Intubatt 2
Protecting open aperture	Vertical (Wall)	Intubatt bulkhead overlapping lightweight steel frame fire rated plasterboard wall 2 hr	Lorient LVH44 Intumescent fire damper - Installed in TBA Firefly Intubatt board	-/120/-	450 x 450mm	Exova EWFA RIR3488500	TBA Intubatt 3
Protecting open aperture	Vertical (Wall)	Intubatt bulkhead installed in lightweight steel frame fire rated plasterboard wall 2 hr	Lorient LVH44 Intumescent fire damper- Installed in TBA Firefly Intubatt board	-/120/-	450 x 450mm	Exova EWFA RIR3488500	TBA Intubatt 4
Protecting open aperture	Vertical (Wall)	Intubatt bulkhead overlapping 51, 68, or 78mm Speedpanel wall up to 2 hr	Lorient LVH44 Intumescent fire damper - Installed in TBA Firefly Intubatt board	-/120/-	450 x 450mm	Exova EWFA RIR3488500	TBA Intubatt 5
Protecting open aperture	Vertical (Wall)	Promat Promasil 1100 board	Lorient LVH44 Intumescent fire damper Installed in Promasil 1100 board	-/120/-	800 x 800mm	Branz FAR 3404 & FAR 4810	Promat 1
Protecting open aperture	Vertical (Wall)	Promat Promasil 1100 board	Lorient LVH44 Intumescent fire damper - surface mounted to Promasil 1100 board	-/120/-	800 x 800mm	Branz FAR 3404 & FAR 4810	Promat 2
Protecting aperture in ceiling	Ceiling	2 x 16mm fire rated plasterboard ceiling	Lorient CE-1 intumescent fire damper - Mounted in ceiling	-/60/60 RISF 60min	0.25 sqm	Branz FAR 4581	Ceiling 1
Protecting aperture in ceiling	Ceiling	2 x 16mm fire rated plasterboard ceiling	Lorient CE-2 intumescent fire damper - Mounted in ceiling void	-/60/60 RISF 60min	0.20 sqm	Branz FAR 4581	Ceiling 2
Protecting aperture in ceiling	Ceiling	2 x 16mm fire rated plasterboard ceiling	Lorient CE-3 intumescent fire damper - Mounted in ceiling	-/90/90 RISF 60min	Ø150	Branz FAR 5859	Ceiling 3
Protecting open aperture	Vertical (Wall)	Masonry or Concrete wall 4hr performance	Lorient LVH44 Intumescent air transfer grille - mounted in wall with mesh guard	-/240/120	2400 x1200mm	Exova EWFA 48623700.2 Exova EWFA55205900	FR - ATG 1
Protecting open aperture	Vertical (Wall)	CSR Hebel wall (min 75mm thick) 60min , 90min or 2hr performance	Lorient LVH44 Intumescent air transfer grille - mounted in wall with mesh guard	-/120/120	2400 x1200mm	Exova EWFA 48623700.2 Exova EWFA55205900	FR - ATG 2
Protecting open aperture	Vertical (Wall)	Prontopanel wall 60m thick	Lorient LVH44 Intumescent air transfer grille - mounted in wall with mesh guard	-/120/120	2400 x1200mm	Exova EWFA 48623700.2 Exova EWFA55205900	FR - ATG 3
Protecting open aperture	Vertical (Wall)	Masonry or Concrete wall 4hr performance	Lorient LVH44 Intumescent air transfer grille - mounted in wall - no guard	-/120/-	2400 x1200mm	Exova EWFA 48623700.2 Exova EWFA55205900	FR - ATG 4
Protecting open aperture	Vertical (Wall)	CSR Hebel wall (min 75mm thick) 60min , 90min or 2hr performance	Lorient LVH44 Intumescent air transfer grille - mounted in wall - no guard	-/120/-	2400 x1200mm	Exova EWFA 48623700.2 Exova EWFA55205900	FR - ATG 5
Protecting open aperture	Vertical (Wall)	51mm, 64mm 78mm Speedpanel	Lorient LVH44 Intumescent air transfer grille - mounted in wall - no guard	-/120/-	2400 x1200mm	Exova EWFA 48623700.2 Exova EWFA55205900	FR - ATG 6

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Service Penetration	Orientation	Substrate	System Description	FRR	Test Dims	Report Ref.	ID Ref.
INTUMESCENT FIRE DAMPERS							
Protecting open aperture	Vertical (Wall)	Prontopanel wall	Lorient LVH44 Intumescent air transfer grille - mounted in wall - no guard	-/120/-	2400 x1200mm	Exova EWFA 48623700.2 Exova EWFA55205900	FR - ATG 7
Protecting open aperture	Vertical (Wall)	Masonry or Concrete wall 4hr performance	Lorient LVH44 Intumescent air transfer grille - Surface mounted over aperture with mesh to one side	-/240/120 one way FRL	Max aperture size 1000 x 500mm	Exova EWFA 48623700.2 Exova EWFA55205900	FR - ATG 8
Protecting open aperture	Vertical (Wall)	CSR Hebel wall (min 75mm thick) 60min , 90min or 2hr performance	Lorient LVH44 Intumescent air transfer grille - Surface mounted over aperture with mesh to one side	-/240/120 one way FRL	Max aperture size 1000 x 500mm	Exova EWFA 48623700.2 Exova EWFA55205900	FR - ATG 9
Protecting open aperture	Vertical (Wall)	Prontopanel wall	Lorient LVH44 Intumescent air transfer grille - Surface mounted over aperture with mesh to one side	-/240/120 one way FRL	Max aperture size 1000 x 500mm	Exova EWFA 48623700.2 Exova EWFA55205900	FR - ATG 10
Protecting aperture in door	Fire doors	E-CORE Maxi & Mini fire door assemblies up to 4hr	Lorient LVH-D fire door ventilation grille	-/60/30 -/120/30 -/240/30	600 x 300mm 450 x 450mm 300 x 300mm	Branz FAR 339	Fire door 1
Protecting aperture in door	Fire doors	FIRECORE Maxi & Mini fire door assemblies up to 4hr	Lorient LVH-D fire door ventilation grille	-/60/30 -/120/30 -/240/30	600 x 300mm 450 x 450mm 300 x 300mm	CSIRO FCO 3064	Fire door 2
Protecting aperture in door	Fire doors	PYROPANEL FR board and Pandor fire door assemblies up to 4 hr	Lorient LVH-D fire door ventilation grille	-/60/30 -/120/30 -/240/30	600 x 600mm 600 x 300mm 450 x 450mm 300 x 300mm	Exova EWFA 227704400	Fire door 3

Service Penetration	Orientation	Substrate	System Description	FRR	Test Dims	Report Ref.
FIRE RESISTANT GLAZING SYSTEMS						
Fire rated window / glazed screen	Vertical (Wall)	Masonry or timber framed fire rated plasterboard walls	Lorient System 36 with 6.5mm Georgian Wired Polished Plate glass	-/30/-	Max screen height 3000mm Max screen width - no limit Max individual pane size 1972mm x 906mm (clear opening)	BRANZ FAR 4524
Fire rated window / glazed screen	Vertical (Wall)	Masonry or timber framed fire rated plasterboard walls	Lorient System 36 with 10mm Pilkington Pyrodur glass	-/30/-	Max screen height 3000mm - Max screen width - no limit Max individual pane size 1969mm x 900mm (clear opening)	BRANZ FAR 4524
Fire rated window / glazed screen	Vertical (Wall)	Masonry or timber framed fire rated plasterboard walls	Lorient System 36 with 15mm Pilkington Pyrostop glass	-/30/30	Max screen height 3m Max screen width - no limit Max individual pane size 2000mm x 1378mm (clear opening)	BRANZ FAR 4524
Fire rated window / glazed screen	Vertical (Wall)	Masonry or timber framed fire rated plasterboard walls	Lorient System 36 with 16mm AGC Pyrobel glass	-/30/30	Max screen height 3m Max screen width - no limit Max individual pane size 2000mm x 1378mm (clear opening)	BRANZ FAR 4524
Fire rated window / glazed screen	Vertical (Wall)	Masonry or timber framed fire rated plasterboard walls	Lorient System 36 with Schott Pyronova 30 glass	-/30/30	Max screen height 3m Max screen width - no limit Max individual pane size 2000mm x 1378mm (clear opening)	BRANZ FAR 4524
Fire rated window / glazed screen	Vertical (Wall)	Masonry or timber framed fire rated plasterboard walls	Lorient System 36 with 15mm Pilkington Pyrostop glass	-/60/30	Max screen height 3m Max screen width - no limit Max individual pane size 2000mm x 1378mm (clear opening)	BRANZ FAR 4524

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Service Penetration	Orientation	Substrate	System Description	FRR	Test Dims	Report Ref.
FIRE RESISTANT GLAZING SYSTEMS						
Fire rated window / glazed screen	Vertical (Wall)	Masonry or timber framed fire rated plasterboard walls	Lorient System 36 with 16mm AGC Pyrobel glass	-/60/30	Max screen height 3m Max screen width - no limit Max individual pane size 2000mm x 1378mm (clear opening)	BRANZ FAR 4524
Fire rated window / glazed screen	Vertical (Wall)	Masonry or timber framed fire rated plasterboard walls	Lorient System 36 with Schott Pyronova 30 glass	-/60/30	Max screen height 3m Max screen width - no limit Max individual pane size 1460mm x 460mm (clear opening)	BRANZ FAR 4524
Fire rated window / glazed screen	Vertical (Wall)	Masonry or timber framed fire rated plasterboard walls	Lorient System 36 with 23mm Pilkington Pyrostop glass	-/60/60	Max screen height 3m Max screen width - no limit Max individual panesize 2000mm x 1378mm (clear opening)	BRANZ FAR 4524
Fire rated window / glazed screen	Vertical (Wall)	Masonry or timber framed fire rated plasterboard walls	Lorient System 36 with 25mm AGC Pyrobel glass	-/60/60	Max screen height 3m Max screen width - no limit Max individual panesize 2000mm x 1378mm (clear opening)	BRANZ FAR 4524
Fire rated window / glazed screen	Vertical (Wall)	Masonry or timber framed fire rated plasterboard walls	Lorient System 36 with Schott Pyronova 60 glass	-/60/60	Max screen height 3m Max screen width - no limit Max individual pane size 2000mm x 1378mm (clear opening)	BRANZ FAR 4524
Fire rated window / glazed screen	Vertical (Wall)	Masonry or timber framed fire rated plasterboard walls	Lorient System 90+ with 6mm Pyroshield Safety Wired glass	-/60/-	Max screen height 3m Max screen width - no limit Max individual pane size 783mm x 923mm (clear opening)	BRANZ FAR 4524
Fire rated window / glazed screens	Vertical (Wall)	Masonry or timber framed fire rated plasterboard walls	Lorient System 90+ with 6mm Pyran S	-/60/-	Max screen height 3m Max screen width - no limit Max individual pane size 923mm x 1923mm (clear opening)	BRANZ FAR 4524