SPARTA SYSTEMS

FIRESTOPPING PROJECT DETAILS

Project:	Pathology Unit (St James’)
Main Contractor:	BAM Construction
Firas URN:	TX1830

Revised 23rd June 2023

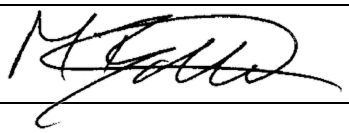
Firestopping Package at Pathology Unit (St James' Hospital for BAM Construction)
Agreed Scope of Works

- Sparta are to provide Fire Stopping works under the following scenarios (Anything not mentioned such as Profiled Deck Fillers and Beam Encasements are deemed to be included as part of the General Drylining Package):
    - Penetrations Seals through Fire Rated Walls
    - Penetration Seals through Fire Rated Floors
    - Linear Seals between Blockwork and Steelwork and between Blockwork and Concrete (Not covered under Firas Accreditation but will be logged on Bolster)
    - Penetrations Seals through Acoustic Rated Walls (Not covered under Firas Accreditation but will be logged on Bolster)
    - Fire Barriers above Ceilings and penetrations of services through them (Installed to manufacturers details but not covered under Firas Accreditation – Penetrations will also be recorded on Bolster)
- There are 2 Substation rooms on the project that require 120min Protection then aside from those the maximum fire rating required on the project is 60 minutes through walls and 60 minutes through floors. These ratings are to be achieved through tested solutions wherever possible. If there has to be a choice over Integrity Rating or Insulation Rating then Fire Integrity rating will be prioritised over Fire Insulation rating.
- Fire Barriers required above ceiling level will be installed to manufacturers recommendations and these will fall outside the scope of Sparta's 3rd Party Certification. Sparta are currently in the process of gaining 3rd Party Accreditation for Fire Barriers, if this is achieved prior to installing the works on this project then we will cover them under the 3rd Party Accreditation and inform BAM.
- If for some reason a service penetration can't be sealed to meet the Fire Rating required (i.e. no access or services not installed correctly) then Sparta will identify these to the client as soon as possible in order for an agreement to be made on how to proceed.
- Sparta's chosen product manufacturer is Rockwool, we will endeavour to carry out all works with Rockwool tested details, which on occasion will include using other manufacturers' products in conjunction with Rockwool, such as Ultra Universal Pipe Wrap or Mulcol Multicollar, both of which are supported by Rockwool in certain applications.
- As discussed via emails we will be following the guidance in Approved Document B Volume 2, Section B3, Subsection 10. This states that the openings around pipes up to a certain diameter (Table given within this project pack) can have the opening sealed to the pipe as long as the opening around the pipe is kept as tight as possible, essentially:
    - Cast Iron / Copper / Steel pipes/conduits under 160mm Diameter will not require additional H&V insulation, where insulation is already installed by others and is Rockwool compliant this will be sealed around with Mastic, where the insulation cannot be identified a closing seal (such as Pipe Wrap Roll or HE Mastic will be installed to crush the insulation in the event of a fire).
    - Any other Material pipes under 40mm Diameter will not require H&V insulation (if Non-Combustible) nor will they require a closing device (if they are combustible). They will just be sealed tight around the pipe. Where insulation is already installed by others and is Rockwool compliant (H&V Insulation) this will be sealed around, where the insulation cannot be proven to be Fire Resistant a closing seal (such as

Pipe Wrap Roll or HE Mastic will be installed to crush the insulation in the event of a fire)

- Other Significant things to note:
    - Ducts through fire rated walls should already have dampers on them. Where a damper (Both the BSB & ActionAir DWFX-F) do not require any work other than the opening forming in the partition, this will not be recorded on Bolster and will fall outside of the Firas Accreditation. Where a damper requires a specific visit after the damper has been installed (Only where dampers are fitted tight to the soffits), either to install an ablative Batt seal or a gypsum board pattress then these will be recorded through Bolster and will be within the Firas Accreditation. Sparta will include the Damper Types that will require works under this accreditation within this project pack.
    - In the event there are any **combustible pipes** that have insulation on them, this insulation will be cut very locally to allow a fire collar or similar closure device to be installed.
    - Where there are non-combustible and combustible pipes coming through the floor the Combustible pipes should be 200mm away from any other pipes (including other combustible pipes). Non-combustibles can be close to each other but not within 200mm of a combustible.
    - Bends and knuckles/Joints should not be installed within 55mm of the face of the partition/floor that the Service is passing through in order for a closing device to be installed. There may be scope on this in some locations but always better to leave the space than not.
    - Rev 4 (23rd June 2023) we have added in the Engineered Judgements from Rockwool to cover the following and these have been added to the appendix section:
        - Unistrut passing through Fire Walls up to 60min Fire Rating
        - SHS Steelwork passing through Fire Walls up to 60min Fire Rating
        - 25mm Continuous Conduit through Fire Walls up to 60min

Scope read and understood by Sparta Management:

Name	**Position**	**Signed**
Mathew Bates	Director	
Dave Fordham	Project Manager	
Andrei Bagrin	Site Manager	
Simon Jones	Director	

SPARTA SYSTEMS

FIRESTOPPING PROJECT DETAILS

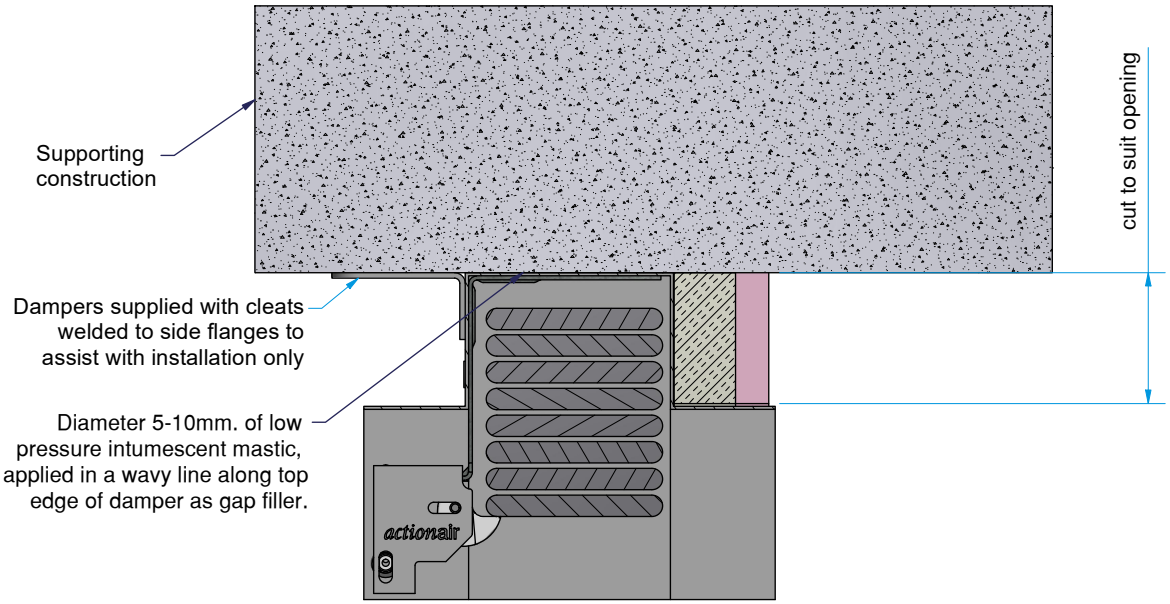
- **Vertical Details (Through Walls)**

Matrix of Solutions - Through Walls

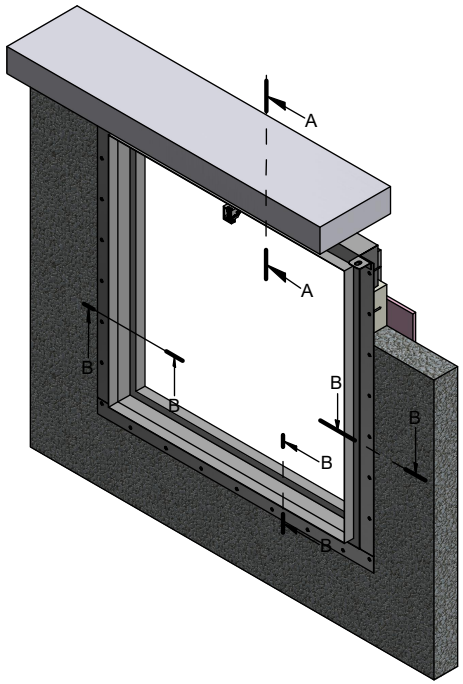
	A	B	C	D
	Dampers	**Cable Trays & Baskets**	**Plastic Pipes and Conduits**	**Non Combustible Pipes and conduits**
Non Fire Rated Walls	Seal up to Ducts that pass through NFR Walls the same as C & D	* If through Letterbox then 2 layers of 50mm Ablative Batt fitted into formed opening and acoustic mastic both sides of wall; make sure both faces finish flush * If no preformed opening exists then Ablative Batt Pattress fixed to the wall (with screws that penetrate by at least 12mm) and Intumescent Mastic Seal around service	* If Gap around opening is <10mm then Acoustic Intumescent Mastic. * If Gap around is greater than 10mm then Ablative Batt Pattress fixed to the wall (with screws that penetrate by at least 12mm) and Intumescent Mastic Seal around service * If through a letterbox opening then 2 layers of 50mm Ablative Batt fitted into formed opening and acoustic mastic both sides of wall; make sure both faces finish flush	
30-120 min FR Depending on Circumstance	**<u>Ducts up to 315mm:</u>** These will be BSB Dampers that do not require any sealing to conform to the Manufacturer Install details. **<u>Ducts over 315mm:</u>** These will be ActionAir DWFX-F Dampers that do not require any sealing to conform to the Manufacturer Install details unless they are being installed tight to soffits. Where theey are tight to soffit please see Detail for Blockwork HERE Detail for Partition HERE **<u>Plastic Ductwork over 160mm</u>**: Install only of Envirograf WPCS Collar **60min Integrity & Insulation** (all preperation of pipework done by others in line with the datasheets, collar supplied FOC)	**<u>Through Letterbox opening:</u>** *2 layers of 50mm Ablative Batt fitted into letterboxed opening and acoustic Intumescent mastic to seal services. Cables to be put into bunches of <50mm diameter by M&E. 0mm Seperation needed to Aperture or for Cables, Baskets or Trays. As per Detail RWSD-ACB-0101 **Achieves 120min Integrity & 60min-90min Insulation (Cable Ladder achieves 90min Integrity only).** **<u>Where there is no Letterbox opening:</u>** *Install an Ablative Batt Pattress each side (Cables to be bunched in 50mm bunches by M&E) Acoustic Intumescent Mastic seal to the services. As per detail RWSD-ACB-0201 **Cables & Tray Achieve 120min Integrity & 60-90min Insulation** **Ladder Achieves 90min Integrity & 90min Insulation** **<u>Other Options where openings cut neatly:</u>** **Option 1 up to 60min Locations:** *Bunched Cables (not on a tray) up to 100mm overall diameter, where cables are no bigger than 21mm dia. each (Holes must be cut tight or no larger than 10mm annular gap) RWA45 Insulation backing and then Intumescent Acoustic mastic seal, to a depth of 12.5mm, all the way round. As Detail RWSD-AIS-0110 **Achieves 60min Integrity & 45min Insulation** **Option 2 up to 90min Locations (Double Boarded Walls):** *Bunched Cables up to 50mm overall diameter (by M&E); Holes must be cut tight or no larger than 10mm annular gap then Intumescent Acoustic mastic seal, to a depth of 25mm, all the way round. If gap exceeds 10mm then multiple visits and backing insulation may be required (additional costs) As Detail RWSD-AIS-0220 **Achieves 90min Integrity & 60min Insulation**	***Plastic pipes up to 40mm can be sealed tight to the wall to meet the requirements of Approved Doc B, Section B3, subsection 10*** **<u>Through Letterbox opening:</u>** * PVC, HDPE & PP 32mm - 160mm Dia. **(1.8mm - 14.6mm pipe wall thickness)** - 2 layers of 50mm Ablative Batt with a Pipe collar installed to each side of the batt. As detail RWSD-COL-0002 **Achieves 120min Integrity & 120min Insulation** Maximum Aperture for this should be: 1,200mm x 730mm ***For cPVC Pipes see detail RWSD-HE-0051 (Max Aperture size 600mm x 400mm)*** **<u>Through Double Boarded Partitions:</u>** * Plastic Pipes 40mm - 160mm **with <10mm annular gap** - install collars providing there is 200mm separation between the next closest firestopped pipe. As Detail RWSD-COL-0001 **Achieves 120min Integrity & 120min Insulation** *** Plastic Pipes 40mm - 160mm with >10mm annular gap or if there is <200mm separation to other service:** use 50mm Ablative Batt as a pattress each side and install Firepro Collar. As Detail RWSD-COL-0003 **Achieves 120min Integrity & 120min Insulation** Maximum Aperture for this should be: 1,200mm x 730mm ***For cPVC Pipes see detail RWSD-HE-0054*** *** Plastic Pipes (Uncommon Installs): use Multicollar Slim Collars.** In Accordance with their tested data **HERE** ***Achieves 120min Integrity & 120min Insulation*** These can also be installed to Batt within letterbox scenarios	***Uninsulated Cast Iron, Copper & Steel Pipes up to 160mm can be sealed tight to the wall or Ablative Batt to meet the requirements of Approved Doc B, Section B3, subsection 10.*** **<u>Insulated Pipes Through Letterbox opening (Where Insulation installed by others is Rockwool H&V section):</u>** *Steel pipes to 168mm dia or Copper Pipes 42mm to 108mm diameter insulated with 25mm-40mm H&V Insulation by others - Install Double 50mm Ablative batt in the letterbox opening and then Seal around the H&V insulation with Intumescent Acoustic Sealant. As per detail RWSD-ACB-0101 **Achieves 120min Integrity & 90-120min Insulation Rating** Maximum Aperture for this should be: 2,600mm x 2,600mm for max 90min rating & 1,200mm x 900mm for 120min rating **<u>Insulated Pipes Through Single & Double Boarded Partitions (Where insulation installed by others is Rockwool H&V section):</u>** *Steel pipes to 168mm dia or Copper Pipes 42mm to 108mm diameter insulated with 25 - 40mm H&V Insulation by others - Install 50mm Ablative batt as a face fixed pattress and then seal around the H&V with a bead of Acoustic Intumescent sealant. This is needed to both sides of the partition. As per detail RWSD-ACB-0201 **25mm H&V will achieve 90min Integrity & 30-60min Insulation Rating** **40mm H&V will achieve 120min Integrity & 120min Insulation Rating** Maximum Aperture for this should be: 1,000mm x 1,000mm (Batt size 1,200mm x 1,200mm)

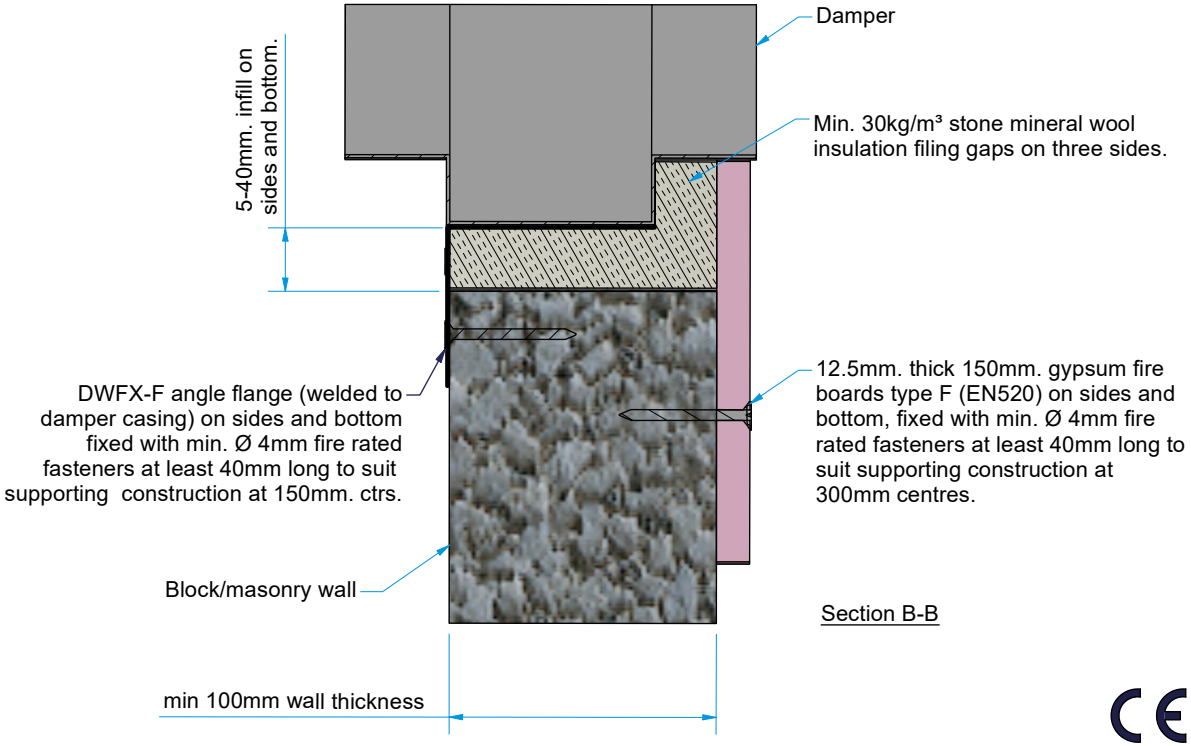
Disclaimers

	A	B	C	D
	Dampers (FD M9 & FD_C)	Cable Trays & Baskets	Plastic Pipes and Conduits	Non Combustible Pipes and conduits
30-60min Fire Rated Walls		If there are no other services going through the opening then the Maximum Aperture sizes will be as follows: Maximum Aperture size when cables going through 2 Ablative Batts within Letterbox opening in a min 100mm wide partition is: 2,600mm x 2,600mm for up to 90min Walls 1,200mm x 900mm for 120min Walls Maximum Aperture size when cables going through Face Fixed Ablative Batt to a min 100mm wide partition is: 1,000mm x 1,000mm (This is due to needing a 50mm overlap so batt total coverage will be 1,200mm x 1,200mm) If there are other services such as Non Combustible Pipes with Pipe Wrap Roll or combustible pipe with Insulated Fire Sleeve then the aperture size will be determined by the service that has the smallest maximum aperture size	Maximum Aperture size when using an Insulated Fire Sleeve to seal a combustible pipe going through 2 layers of Ablative Batt within a letterbox in a min 100mm wide partition is: 900mm x 600mm Maximum Aperture size when using a Pipe Collar to seal a pipe going through an Ablative Batt pattress in a double boarded min 100mm wide partition is: 1,200mm x 730mm Sparta Advised that insulation won't be passing through any fire walls, where the insulation is installed onto the pipe close to the wall it may need to be removed by Sparta in order for us to install the closing device solution, such as Collar or Batt & Mastic: Bends and Joins should not be installed within 55mm of the face of the partition that the Service is passing through in order for a closing device to be installed	Maximum Aperture size when using H&V Insulation through 2 Ablative Batts within Letterbox opening in a min 100mm wide partition is: 2,600mm x 2,600mm for up to 90min Walls 1,200mm x 900mm for 120min Walls Maximum Aperture size when using Pipe Wrap Roll to seal an insulated pipe going through 2 Ablative Batts within Letterbox opening in a min 100mm wide partition is: 1,200mm x 730mm Maximum Aperture size when using H&V Insulation through Face Fixed Ablative Batt to a min 100mm wide partition is: 1,000mm x 1,000mm (This is due to needing a 50mm overlap so batt total coverage will be 1,200mm x 1,200mm) Maximum Aperture size when using Pipe Wrap Roll to seal an insulated pipe going through Face Fixed Ablative Batt to a min 100mm wide partition is: 1,200mm x 730mm Any Copper Pipes below 42mm need 100mm of spacing to nearest service or to aperture of an opening, this is true in Letterbox and also if its a pattress A masonry wall must have letterbox style opening for services as pattress fix gives insufficient ratings for copper pipes Where M&E have already installed Rockwool H&V Insulation, this is compatible with our firestop system so we will just seal around.
90-120min Fire Rated Walls				



Section A-A





Section B-B

actionair by Swegon
© Swegon Air Management Limited
South Street, Whitstable, Kent CT5 3DU
Tel: +44 (0)1227 276100
Email: actionair@swegon.com
www.swegon.com/uk

Installation Detail

If your proposed installation details differ from that shown here, please discuss this with the authority having jurisdiction, referencing this documentation.

Deviation from this drawing requires approval of the relevant authority.

Connecting ductwork omitted for clarity. Ductwork must be independently supported. There must be an appropriate break-away joint between the damper and the connecting ductwork on both sides of the installation.

A minimum of 200mm between fire dampers installed in separate ducts and 75mm between fire damper and construction elements/edges needs to be observed unless otherwise specified in the drawing.

SCAN ME

Please refer to the DoP for latest classifications for CE/UKCA compliance and the Installation, Operation and Maintenance Guide

Rev:	Comments:	By:	Date:
C	ECN2227	JPM	13/04/22
B	ECN1986	MJB	18-03-20
A	ECN1944	MJB	26-07-19
	ECN1938	MJB	01-07-19

Drawn By:	M. Bushell	Date:	12/06/2019
Checked By:	Kimberley.M	Date:	13/04/2022
Approved By:	Gore.S	Date:	13/04/2022

Description:

VERTICAL APPLICATION

FIRE SHIELD DWFX-F, IN MASONRY WALL AGAINST SUPPORTING CONSTRUCTION

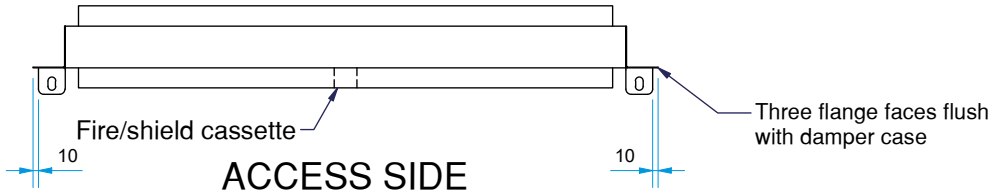
Damper Size Range (mm)
100 x 100 to 1250 x 1000

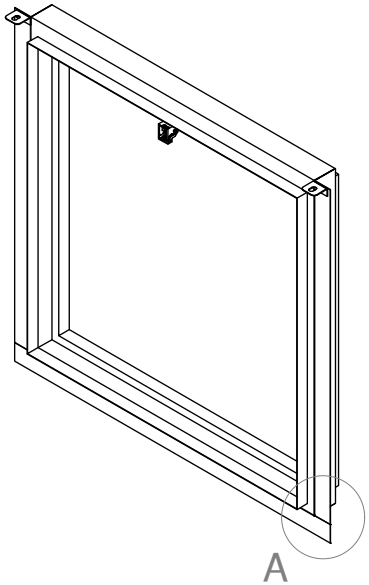
Reference No:	Sheet	Rev
AAF12827	1 of 2	C

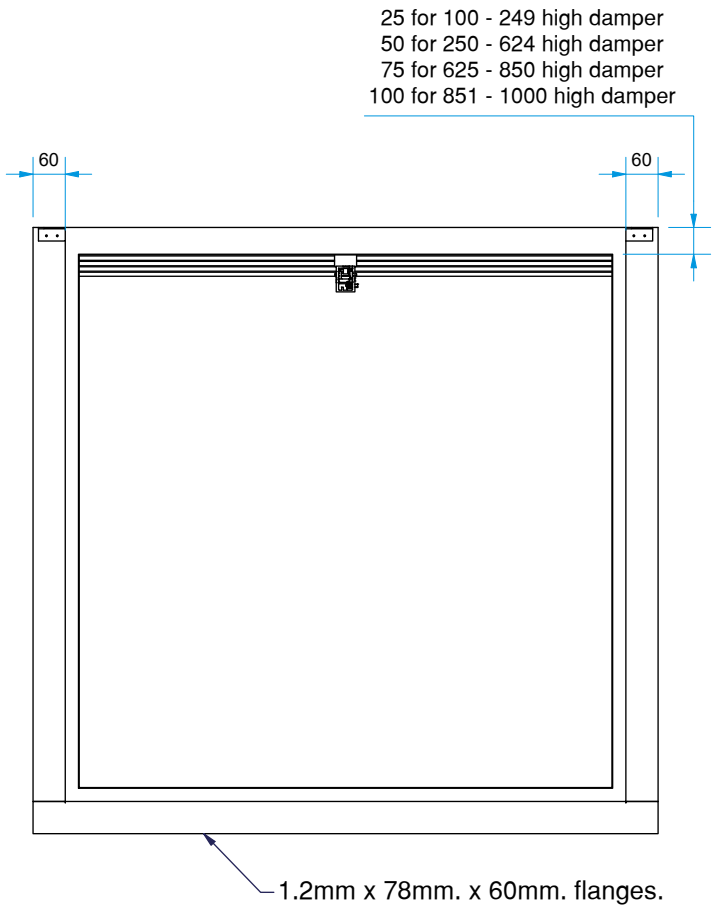
Drawing No:	Sheet	Rev
AAF12827	2 of 2	C

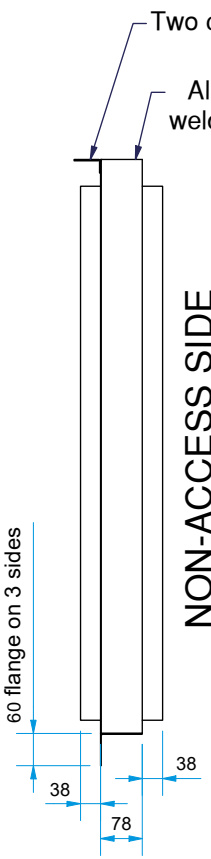
Third Angle Projection | A3

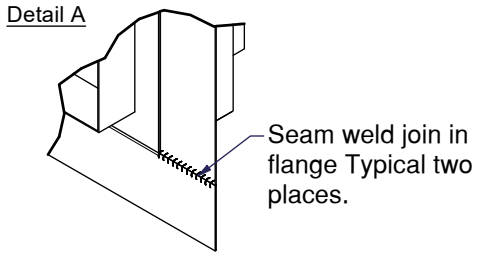
All dimensions in mm. **Do NOT** scale from drawing. If in doubt **ASK!**











actionair by Swegon
© Swegon Air Management Limited
South Street, Whitstable, Kent CT5 3DU
Tel: +44 (0)1227 276100
Email: actionair@swegon.com
www.swegon.com/uk

Assembly Notes

Part No:
Est Weight: 5.982 kg

Drawing notes & limits (unless otherwise stated)

No Decimal:	± 1.00mm
One Decimal:	± 0.50mm
Two Decimals:	± 0.25mm
Three Decimals:	± 0.10mm
Angles:	± 2.00 degrees

Critical dims and features shown in red and enclosed in box

Manufacturing Detail

Notes

1. Angle flanges on access side.
2. 1.20mm x 60mm. x 78mm, (m/stl galv.) flange to damper casing welds must be 6-10mm stitch welds, 125mm (max) centres.
3. Two cleats welded to side angles as shown.

Rev:	Comments:	By:	Date:
C	ECN2227	JPM	13/04/22
B	ECN1986	MJB	18-03-20
A	ECN1944	MJB	26-07-19
-	ECN1938	MJB	01-07-19

Drawn By:	M. Bushell	*Date:*	12/06/2019
Checked By:	Kimberley.M	*Date:*	13/04/2022
Approved By:	Gore.S	*Date:*	13/04/2022

Product: FS
Client: SAML
Project: N/A

Description:
FS damper manufacturing detail for DWFX-F installation in a masonry/block wall against a supporting structure

Drawing No:	Sheet	Rev
AAF12827	2 of 2	C

Envirograf®
Protecting the irreplaceable

40 YEARS

PRODUCT 13

Innovators - Developers - Manufacturers

Passive Fire Prevention Products

WPCS KIT FOR LARGE PIPES (WPCS/K)

FOR PIPES THAT ARE 3mm THICK AND UPWARDS

PATENTED

Envirograf® have developed a new WPCS kit to protect large PVC/Polypropylene/UPVC pipes up to 900mm in diameter, with a minimum wall thickness of 3mm, in the event of a fire.

In order to protect the pipe, the following steps below must be taken prior to installation of the WPCS collar. The fiberglass and intumescent coating must be applied to the pipe section passing through the wall and each side of the wall to the depth of the selected WPCS collar.

1. Fix 2 sheets of fiberglass cut to length with overlap

2. Pots of adhesive will be supplied with pots of hardener to add to adhesive. Stir well. Apply adhesive to the pipe, lay over the first sheet of fiberglass. Ensure the fiberglass overlaps by 50-100mm. You can leave to dry for 10 to 20 minutes.

3. Apply the rest the adhesive and then lay over the second sheet of fiberglass. Leave to dry until it has gone hard, approximately for 2 hours.

4. Then apply three coats of our grey Intumescent coating at 8m^2 per litre per coat. Each coat takes approximately 20 minutes to dry.

5. Your sleeve can now be fitted into the wall. Our WPCS fitted to the outside of the pipe on the fire/risk side and screwed to the wall with fixing brackets supplied.

The kit includes:

- WPCS Collar
- 2 layers of fiberglass
- Adhesive with hardener
- Grey intumescent coating

ALL TESTED TO:

BS EN 1363-3:2009

BS EN 1366-3-2009

EN 13501-2:2004

400MM - FITTED TO WALL FOR TESTING

400MM - END OF RESULT

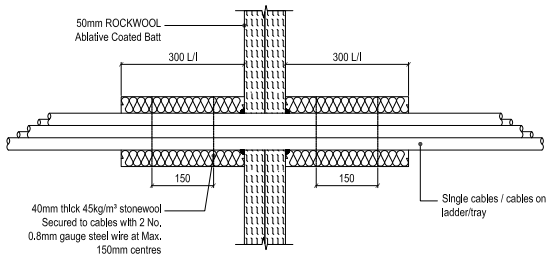
FIRE PERFORMANCE

400mm	2 hours 4 minutes insulation
600mm	1 hour 56 minutes insulation
900mm	1 hour 41 minutes insulation

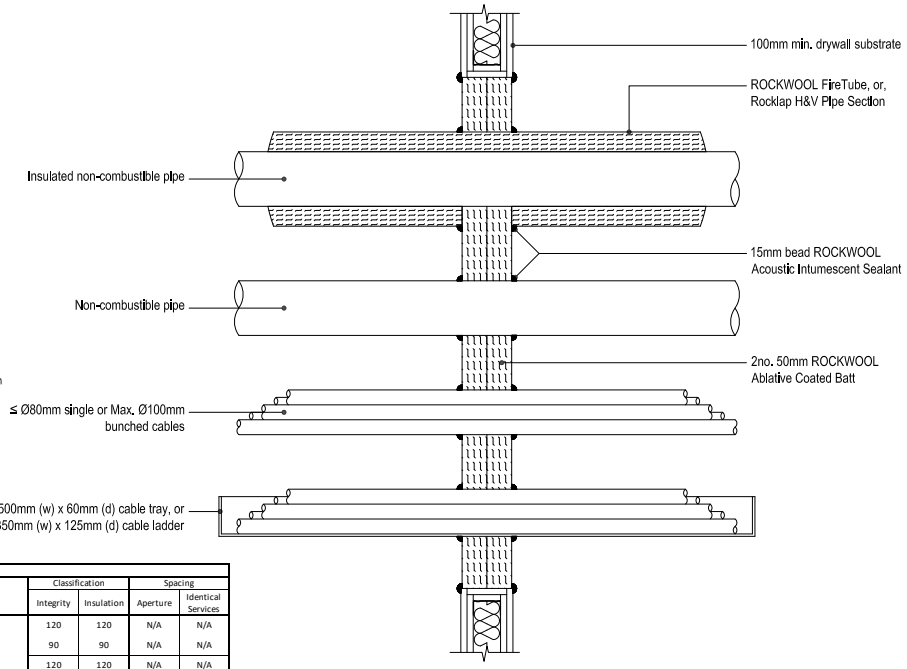
Integrity 60 minutes

Head Office : Intumescent Systems Ltd, Envirograf House, Barfrestone, Dover, Kent, CT15 7JG, United Kingdom

Contact our Technical Team for more information: **sales@envirograf.com** or visit www.envirograf.com



ADDITIONAL CABLE PROTECTION
TO ACHIEVE INSULATION RATING



DOUBLE 50MM ABLATIVE COATED BATT IN FLEXIBLE WALL

PERFORMANCE TABLE:

DOUBLE 50MM ABALTIVE COATED BATT 100MM WALL - NON COMBUSTIBLE PIPES								
Service type		Substrate	Seal	Service Treatment	Classification		Spacing	
					Integrity	Insulation	Aperture	Identical Services
Blank seal	≤ 1200 x 900	100mm Flexible Wall Construction or Masonry Wall	2 No. 50mm Ablative Coated Batts	N/A	120	120	N/A	N/A
	≤ 2600 x 2600				90	90	N/A	N/A
	≤ 1100 x 1100	150mm Masonry Wall			120	120	N/A	N/A
Steel pipe	≤ 168mm	100mm Flexible Wall Construction or Masonry Wall		1000mm length of 40mm H&V pipe section L/S	120	120	0mm	0mm
Copper pipe	≤ 108mm				120	120	0mm	0mm
Steel pipe	≤ 168mm			1000mm length of 25mm H&V pipe section L/S	120	90	0mm	0mm
Copper pipe	≤ 108mm				120	90	0mm	0mm
Copper pipe	≤ 42				120	120	100mm	100mm
Steel pipes	≤ 219mm			N/A	120	15	0mm	100mm
Steel pipe	≤ 610mm	100mm Masonry Wall Construction		1000mm length of 40mm H&V pipe section L/S	180	60	0mm	100mm
Steel pipe	≤ 610mm			N/A	180	15	0mm	100mm
Steel pipe	≤ 324mm			300mm length of Ablative Liquid 2mm DFT (L/S)	120	45	100mm	100mm
Copper pipe	≤ 159mm				120	15	100mm	100mm
DOUBLE 50MM ABALTIVE COATED BATT 100MM WALL - CABLES								
Electrical cables	≤ Ø≤21mm	100mm Flexible Wall Construction or Masonry Wall	2 No. 50mm Ablative Coated Batts	N/A	120	90	0mm	0mm
	≤ Ø22-50mm				120	60	0mm	0mm
	≤ Ø51 - 80mm				90	60	0mm	0mm
Perforated Tray	≤ 500mm (w) x 60mm (d) x 1.0mm (t)				120	90	0mm	0mm
Cable ladder	≤ 350mm (w) x 125mm (d) x 1.5mm (t)				90	90	0mm	0mm
Telecomm cables	≤ Ø100mm bundle				120	90	0mm	0mm
Unsheathed cables	≤ Ø24mm				120	45	0mm	0mm
PVC conduits	≤ Ø16mm				120	90	0mm	0mm
Copper Conduits	≤ Ø16mm				120	15	0mm	0mm
Electrical cables	≤ Ø≤21mm	150mm Masonry Wall		40mm thick 45kg/m3 stonewool lagging (RWA45) L/l 300mm	120	120	100mm	0mm
	≤ Ø22mm - 80mm				120	90	100mm	0mm
Cable tray	≤ 500mm (w) x 60mm (h) x 1.5mm (t)				120	120	100mm	0mm
Cable ladder	≤ 350mm (w) x 125mm (d) x 1.5mm (t)				120	120	100mm	0mm
Telecomm cables	≤ Ø100mm bundle				120	120	100mm	0mm
Unsheathed cables	≤ Ø24mm				120	120	100mm	0mm

ROCKWOOL Standard Detail:

Supporting Evidence: WF335645 / UL-EU-01208 / WF 411452
WF 406434 / WF 407899 / WF 411468 / WF 411453

The supporting construction must be capable of achieving the required fire rating of the proposed firestop.

Flexible wall constructions must be installed in accordance with the manufacturer's guidelines with the aperture being fully framed and lined out. The wall construction should be a minimum thickness of 100mm.

All service items should be adequately supported both sides of the firestop to ensure that no load is transferred onto the firestop seal.

ROCKWOOL Rocklap H&V Pipe Section to be installed in a continuous, 1000mm, locally sustained (L/S) length centrally through or. locally interrupted (L/I) 500mm either side of the Ablative Coated Batt seal. ROCKWOOL Rocklap H&V Pipe Section can be substituted for ROCKWOOL Fire Tube.

Additional combustible pipe solutions can be found in the ROCKWOOL Insulated Fire Sleeve (IFS) details CE Collar Details (COL) and ROCKWOOL High Expansion Intumescent Sealant (HE) details.

Where no dimension is given for service separation or aperture edge separation the dimension is 100mm. If this does not suit your project requirements please contact ROCKWOOL

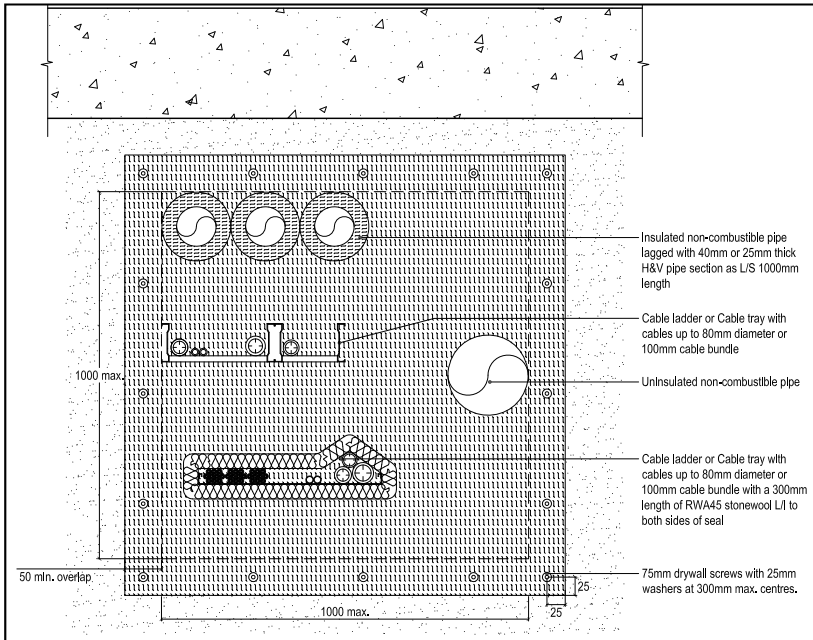
Refer to relevant product datasheet for further installation guidelines. These products should only be utilised for applications as outlined in the relevant ROCKWOOL product data sheet and in accordance with the relevant ROCKWOOL Fire Resistance Testing. Additionally the product must be installed in accordance with the current ROCKWOOL guidelines. For further information please visit www.rockwool.co.uk or contact our Technical Solutions Team on 01656 868490.

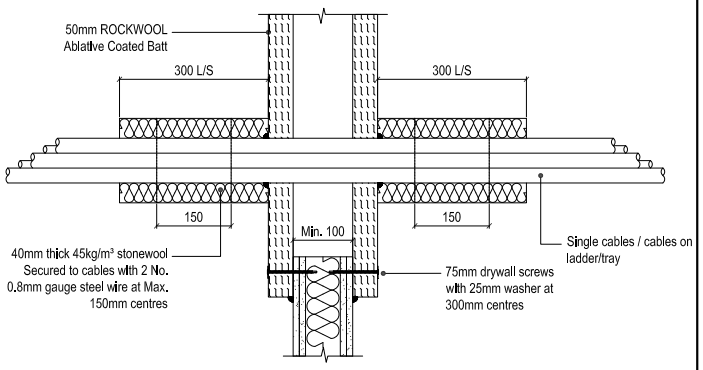
Integrity Performance:	Insulation Performance:
Up to 120 Minutes	Up to 120 Minutes

ROCKWOOL®
Pencoed, Bridgend,
South Wales CF35 6NY
t: 01656 868490
technical.solutions@rockwool.co.uk

Drawing Title:
ROCKWOOL FIREPRO® 50mm Ablative Coated Batt
Double Layer Application Range

Scale:	Date:	
1:10	FEB 22	
Sheet Size: A3	Drawn By: S.HIRONS	Checked By: L.HAM
Drawing Number: RWSD-ACB-0101		Revision: -





ADDITIONAL CABLE PROTECTION TO ACHIEVE INSULATION RATING

PERFORMANCE TABLE:

DOUBLE 50MM ABALTIVE COATED BATT FACE FIX								
Service type			Substrate	Seal	Service Treatment	Classification		Spacing	
						Integrity	Insulation	Aperture	Identical Services
Blank seal	≤	1000 x 1000	100mm Flexible Wall Construction or Masonry Wall	2 No. 50mm Ablative Coated Batts Face Fixed	N/A	120	120	N/A	N/A
Electrical cables	≤	Ø ≤21mm				120	90	0mm	0mm
	≤	Ø 22-50mm				120	60	0mm	0mm
	≤	Ø 51 - 80mm				90	60	0mm	0mm
Perforated Tray	≤	500 mm (w) x 25mm (h) x 1.0mm (t)				120	90	0mm	0mm
Cable ladder	≤	350mm (w) x 125mm (d) x 1.5mm (t)				90	90	0mm	0mm
Telecomm cables	≤	Ø 100mm bundle				120	90	0mm	0mm
Unsheathed cables	≤	Ø 24mm				120	45	0mm	0mm
PVC conduits	≤	Ø 16mm				120	90	0mm	0mm
Copper Conduits	≤	Ø 16mm				120	15	0mm	0mm
Electrical cables	≤	Ø ≤80mm			40mm thick 45kg/m3 stonewool lagging (RWA45) L/I 300mm	120	120	100mm	0mm
Cable tray	≤	500mm (w) x 60mm (h) x 1.5mm (t)				120	120	100mm	0mm
Cable ladder	≤	350mm (w) x 125mm (d) x 1.5mm (t)				120	120	100mm	0mm
Telecomm cables	≤	Ø 100mm bundle				120	120	100mm	0mm
Steel or copper conduits	≤	Ø 16mm				120	120	100mm	0mm
Plastic conduits	≤	Ø 16mm				120	120	100mm	0mm
Unsheathed cables	≤	Ø 24mm				120	120	100mm	0mm
Steel pipe	≤	168mm			1000mm length of 40mm H&V pipe section L/S	120	120	0mm	0mm
Copper pipe	≤	108mm				120	120	0mm	0mm
Steel pipes	≤	219mm			N/A	120	15	0mm	0mm
Steel pipe	≤	168mm			1000mm length of 25mm H&V pipe section L/S	90	60	0mm	0mm
Copper pipe	≤	108mm				90	30	0mm	0mm
Copper pipe	≤	42				120	120	100mm	100mm
Steel pipe	≤	610mm	100mm Masonry Wall Construction		1000mm length of 40mm H&V pipe section L/S	180	60	0mm	100mm
Steel pipe	≤	610mm			N/A	180	15	0mm	100mm
Steel pipe	≤	324mm			300mm length of Ablative Liquid 2mm DFT (L/S)	120	45	100mm	100mm
Copper pipe	≤	159mm				120	20	100mm	100mm

ROCKWOOL Standard Detail:

Supporting Evidence: UL-EU-01208 / WF 407899 / WF 385718 / WF 411452 / WF 406434

The supporting construction must be capable of achieving the required fire rating of the proposed Firestop.

The 50mm Rockwool Ablative Coated Batt must be installed with ROCKWOOL Intumescent sealant bedded between the batt and the drywall. A fillet of sealant must be installed at the junction between the batt and the drywall to ensure no gaps are visible between the drywall and the batt. The exposed mineral wool edges should be buttered with a layer of sealant or ablative coating. All batt to batt joints are to receive acoustic Intumescent sealant.

For applications where a 4 sided fix is not possible or if the 50mm overlap onto partition is not possible contact ROCKWOOL.

All service items should be adequately supported either side of the Firestop to ensure that no load is transferred onto the coated batt.

Flexible wall constructions must be installed in accordance with the manufacturer's guidelines with the aperture being fully framed and lined out. The wall construction should be a minimum thickness of 100mm.

ROCKWOOL Rocklap H&V Pipe Section to be installed in a continuous, 1000mm, locally sustained (L/S) length centrally through the Ablative Coated Batt seal. ROCKWOOL Rocklap H&V Pipe Section can be substituted for ROCKWOOL Fire Tube.

Additional combustible pipe solutions can be found in the ROCKWOOL Insulated Fire Sleeve (IFS) details CE Collar Details (COL) and ROCKWOOL High Expansion Intumescent Sealant (HE) details.

Where no dimension is given for service separation or aperture edge separation the dimension is 100mm. If this does not suit your project requirements please contact ROCKWOOL

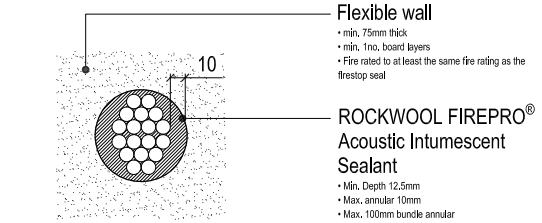
Refer to relevant product datasheet for further installation guidelines. These products should only be utilised for applications as outlined in the relevant ROCKWOOL product data sheet and in accordance with the relevant ROCKWOOL Fire Resistance Testing. Additionally the product must be installed in accordance with the current ROCKWOOL guidelines. For further information please visit www.rockwool.co.uk or contact our Technical Solutions Team on 01656 868490.

Integrity Performance:	Insulation Performance:
Up to 120 Minutes	Up to 120 Minutes

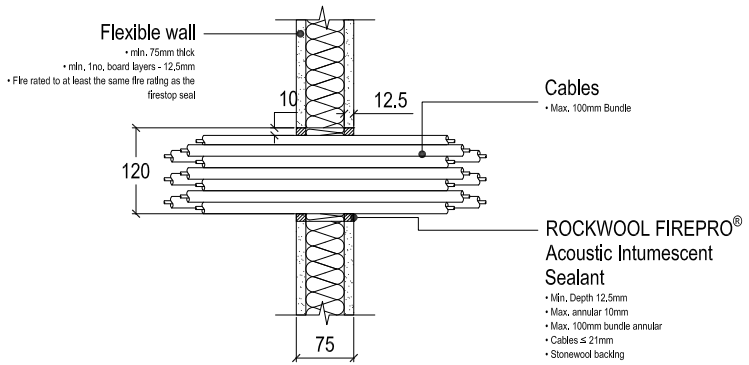
ROCKWOOL®
Pencoed, Bridgend,
South Wales CF35 6NY
t: 01656 868490
technical.solutions@rockwool.co.uk

Drawing Title:
ROCKWOOL FIREPRO® 50mm Ablative Coated Batt Face Fix Application Range

Scale:	Date:	
NTS	MAR 22	
Sheet Size: A3	Drawn By: S.HIRONS	Checked By: L.HAM
Drawing Number: RWSD-ACB-0201		Revision: -



SMALL CABLES (≤21mm)
IN BUNCH ≤100mm Ø
THROUGH 75mm FLEXIBLE WALL
E 60 / EI 45



SMALL CABLES (≤21mm) IN BUNCH ≤100mm Ø
THROUGH 75mm FLEXIBLE WALL
E60 / EI 45

ROCKWOOL Standard Detail:

Supporting Test Data : UL-EU-01203-CPR

The supporting construction must be capable of achieving the required fire rating of the proposed firestop.

Flexible wall constructions must be installed in accordance with the manufacturer's guidelines. The wall construction should be a minimum thickness of 75mm.

All service items should be adequately supported both sides of the firestop to ensure that no load is transferred onto the firestop seal.

Applications in flexible wall constructions can be used in masonry wall constructions.

Refer to relevant product datasheet for further installation guidelines.

These products should only be utilised for applications as outlined in the relevant ROCKWOOL product data sheet and in accordance with the relevant ROCKWOOL Fire Resistance Testing. Additionally the product must be installed in accordance with the current ROCKWOOL guidelines.

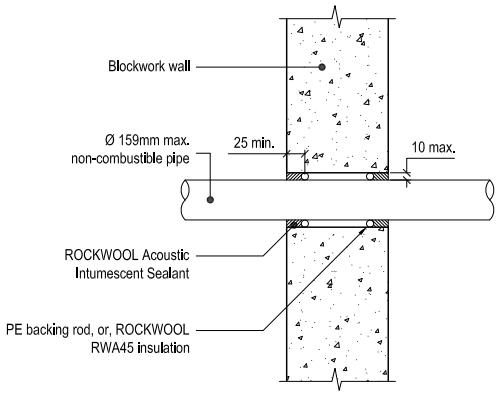
For further information please visit www.rockwool.co.uk or contact our Technical Solutions Team on 01656 868490.

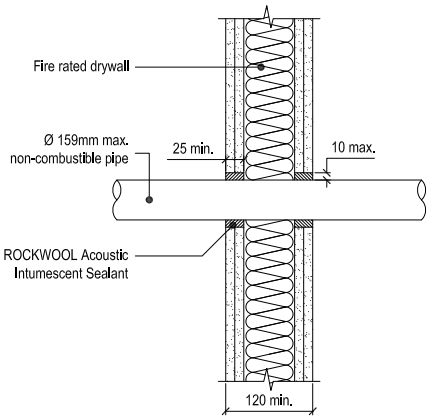
Integrity Performance:	Insulation Performance:
60 minutes	45 minutes

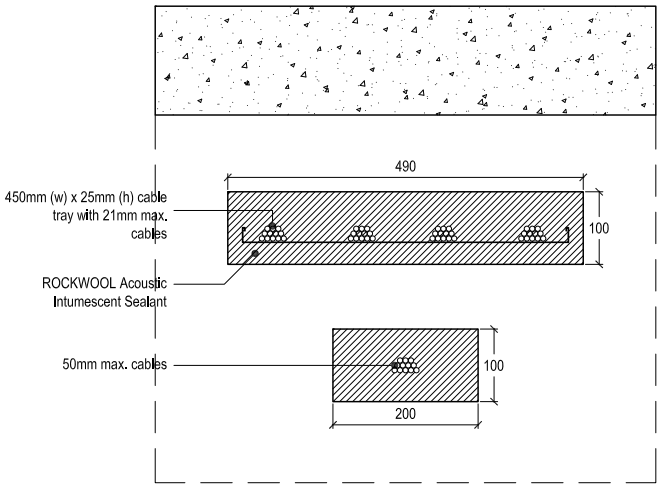
ROCKWOOL®
Pencoed, Bridgend,
South Wales CF35 6NY
t: 01656 868490
technical.solutions@rockwool.co.uk

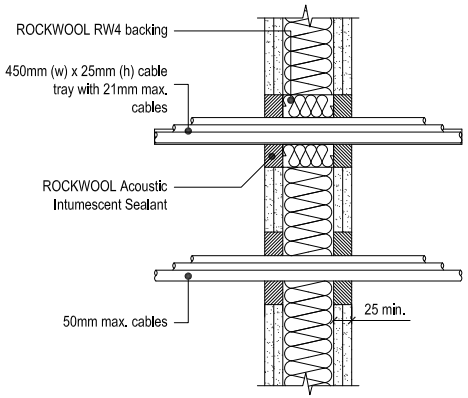
Drawing Title:
ROCKWOOL FIREPRO® Acoustic Intumescent Sealant
75mm Flexible Wall - Cable Penetrations & Blank Seal

Scale:	Date:	
NTS	JUL 22	
Sheet Size: A3	Drawn By: RW TECH	Checked By: L.HAM
Drawing Number: RWSD-AIS-0110		Revision: -









ROCKWOOL Standard Detail:

Supporting Evidence : UL-EU-01203-CPR

The supporting construction must be capable of achieving the required fire rating of the proposed Firestop.

Flexible wall construction must be installed in accordance with the manufacturer's guidelines. The Wall construction should be of a minimum thickness of 120mm.

Where insulation is required from metallic pipes then the service item will need to be lagged with Rockwool Fire Tube or RockLap H&V Pipe Section. Please refer to RWSD-AIS-0221 for further details.

Backing material to control depth of sealant can be either a PE backing rod or ROCKWOOL RWA 45 insulation packed into the annular space.

These products should only be utilised for applications as outlined in the relevant ROCKWOOL product data sheet and in accordance with the relevant ROCKWOOL Fire Resistance Testing. Additionally the product must be installed in accordance with the current ROCKWOOL guidelines.

For further information or alternative products please visit www.rockwool.co.uk or contact our Technical Solutions Team on 01656 868490

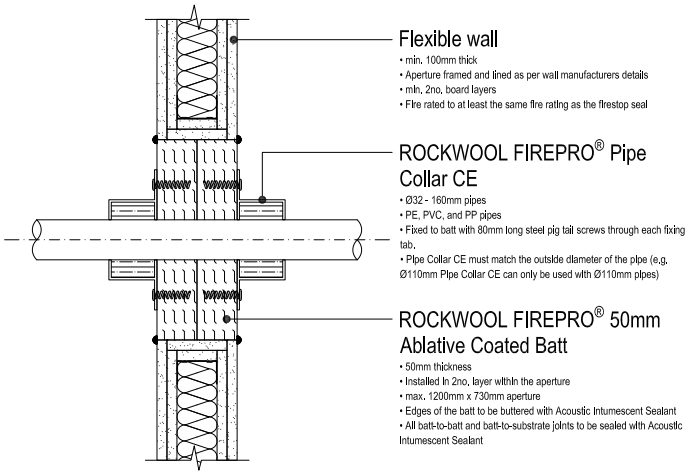
Pipe Integrity Performance:	
Up to 120 Minutes	

Integrity Performance: (Cables)	Insulation Performance: (Cables)
120 Minutes (21-50mm Cables 90 Minutes)	90 Minutes (21-50mm Cables 60 Minutes)

ROCKWOOL®
Pencoed, Bridgend,
South Wales CF35 6NY
t: 01656 868490
technical.solutions@rockwool.co.uk

Drawing Title:
Acoustic Intumescent Sealant with single pipe/cable

Scale:	Date:	
NTS	AUG 22	
Sheet Size: A3	Drawn By: S. HIRONS	Checked By: L.HAM
Drawing Number: RWSD-AIS-0220		Revision: -



Service type		Flexible / rigid wall (min. 100mm thick)		Test Standard	Service separation	
		Integrity	Insulation		Aperture	Services
PVC pipes	**Ø 32 - 50mm** (1.8mm wall thickness) **Ø 55 - 63mm** (2.3 - 3mm wall thickness) **Ø 75 - 82mm** (3.1 - 4.8mm wall thickness) **Ø 90 - 110mm** (4.2 - 7.4mm wall thickness) **Ø 125mm** (6mm wall thickness) **Ø 140mm** (6.1 - 7.5mm wall thickness) **Ø 160mm** (6.2 - 9.5mm wall thickness)	120	120	EN	50mm	0mm
PP pipes	**Ø 32 - 50mm** (2.9mm wall thickness) **Ø 55 - 63mm** (2.9 - 4.4mm wall thickness) **Ø 75 - 82mm** (2.8 - 6.7mm wall thickness) **Ø 90 - 110mm** (2.7 - 10mm wall thickness) **Ø 125mm** (3.1mm wall thickness) **Ø 140mm** (3.5 - 8mm wall thickness) **Ø 160mm** (4 - 14.6mm wall thickness)	120	120	EN	50mm	0mm
PE pipes	**Ø 32 - 50mm** (2.9mm wall thickness) **Ø 55 - 63mm** (2.9 - 4.4mm wall thickness) **Ø 75 - 82mm** (2.8 - 6.7mm wall thickness) **Ø 90 - 110mm** (2.7 - 10mm wall thickness) **Ø 125mm** (3.1mm wall thickness) **Ø 140mm** (3.9 - 5.8mm wall thickness) **Ø 160mm** (4.9 - 9.5mm wall thickness)	120	120	EN	50mm	0mm

ROCKWOOL Standard Detail:

Supporting Evidence : UL-EU-01208-CPR

The supporting construction must be capable of achieving the required fire rating of the proposed firestop.

Flexible wall constructions must be installed in accordance with the manufacturer's guidelines with the aperture being fully framed and lined out. The wall construction should be a minimum thickness of 100mm. This detail can also be applied to rigid wall constructions of 100mm minimum thickness.

All service items should be adequately supported both sides of the firestop to ensure that no load is transferred onto the firestop seal.

Refer to relevant product datasheet for further installation guidelines.

These products should only be utilised for applications as outlined in the relevant ROCKWOOL product data sheet and in accordance with the relevant ROCKWOOL Fire Resistance Testing. Additionally the product must be installed in accordance with the current ROCKWOOL guidelines.

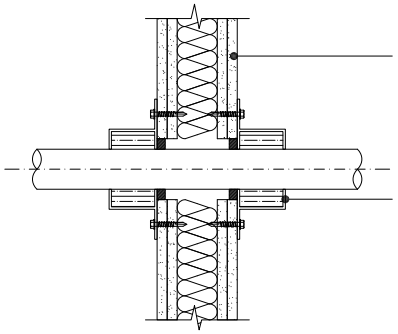
For further information please visit www.rockwool.co.uk or contact our Technical Solutions Team on 01656 868490.

Integrity Performance:	Insulation Performance:
120 mins	120 mins

ROCKWOOL®
Pencoed, Bridgend,
South Wales CF35 6NY
t: 01656 868490
technical.solutions@rockwool.co.uk

Drawing Title:
PIPE COLLAR CE
Ablative Coated Batt Wall Aperture

Scale:	Date:	
NTS	FEB 22	
Sheet Size: A3	Drawn By: S. HIRONS	Checked By: L. HAM
Drawing Number: RWSD-COL-0002		Revision: C



Service type		Flexible / rigid wall (min. 100mm thick) Integrity	Insulation	Test Standard	Service separation Aperture	Services
PVC pipes	**Ø32 - 50mm** (1.8mm wall thickness) **Ø55 - 63mm** (2.3 - 3mm wall thickness) **Ø75 - 82mm** (3.1 - 4.8mm wall thickness) **Ø90 - 110mm** (4.2 - 7.4mm wall thickness) **Ø125mm** (6mm wall thickness) **Ø140mm** (6.1 - 7.5mm wall thickness) **Ø160mm** (6.2 - 9.5mm wall thickness)	120	120	EN	N/A	200mm
PP pipes	**Ø32 - 50mm** (2.9mm wall thickness) **Ø55 - 63mm** (2.9- 4.4mm wall thickness) **Ø75 - 82mm** (2.8- 6.7mm wall thickness) **Ø90 - 110mm** (2.7 - 10mm wall thickness) **Ø125mm** (3.1mm wall thickness) **Ø140mm** (3.5 - 8mm wall thickness) **Ø160mm** (4 - 14.6mm wall thickness)	120	120	EN	N/A	200mm
PE pipes	**Ø32 - 50mm** (2.9mm wall thickness) **Ø55 - 63mm** (2.9- 4.4mm wall thickness) **Ø75 - 82mm** (2.8- 6.7mm wall thickness) **Ø90 - 110mm** (2.7 - 10mm wall thickness) **Ø125mm** (3.1mm wall thickness) **Ø140mm** (3.9 - 5.8mm wall thickness) **Ø160mm** (4.9 - 9.5mm wall thickness)	120	120	EN	N/A	200mm

ROCKWOOL Standard Detail:

Supporting Evidence : UL-EU-01205-CPR

The supporting construction must be capable of achieving the required fire rating of the proposed firestop.

Flexible wall constructions must be installed in accordance with the manufacturer's guidelines. The wall construction should be a minimum thickness of 100mm. This detail can also be applied to rigid wall constructions of 100mm minimum thickness.

All service items should be adequately supported both sides of the firestop to ensure that no load is transferred onto the firestop seal.

Refer to relevant product datasheet for further installation guidelines.

These products should only be utilised for applications as outlined in the relevant ROCKWOOL product data sheet and in accordance with the relevant ROCKWOOL Fire Resistance Testing. Additionally the product must be installed in accordance with the current ROCKWOOL guidelines.

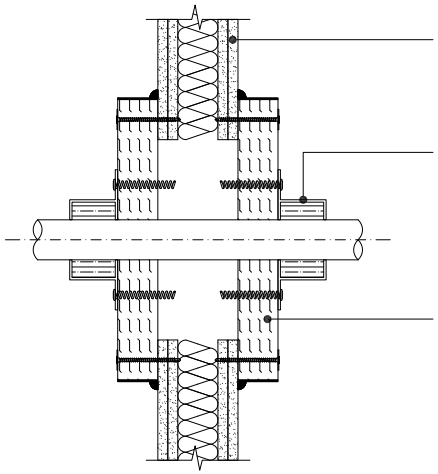
For further information please visit www.rockwool.co.uk or contact our Technical Solutions Team on 01656 868490.

Integrity Performance:	Insulation Performance:
120 mins	120 mins

ROCKWOOL®
Pencoed, Bridgend,
South Wales CF35 6NY
t: 01656 868490
technical.solutions@rockwool.co.uk

Drawing Title:
PIPE COLLAR CE
Direct Through Wall

Scale:	Date:	
NTS	FEB 22	
Sheet Size: A3	Drawn By: S. HIRONS	Checked By: L. HAM
Drawing Number: RWSD-COL-0001		Revision: C



Service type		Flexible / rigid wall (min. 100mm thick) Integrity	Insulation	Test Standard	Service separation Aperture	Services
PVC pipes	**Ø32 - 50mm** (1.8mm wall thickness) **Ø55 - 63mm** (2.3 - 3mm wall thickness) **Ø75 - 82mm** (3.1 - 4.8mm wall thickness) **Ø90 - 110mm** (4.2 - 7.4mm wall thickness) **Ø125mm** (6mm wall thickness) **Ø140mm** (6.1 - 7.5mm wall thickness) **Ø160mm** (6.2 - 9.5mm wall thickness)	120	120	EN	50mm	0mm
PP pipes	**Ø32 - 50mm** (2.9mm wall thickness) **Ø55 - 63mm** (2.9- 4.4mm wall thickness) **Ø75 - 82mm** (2.8- 6.7mm wall thickness) **Ø90 - 110mm** (2.7 - 10mm wall thickness) **Ø125mm** (3.1mm wall thickness) **Ø140mm** (3.5 - 8mm wall thickness) **Ø160mm** (4 - 14.6mm wall thickness)	120	120	EN	50mm	0mm
PE pipes	**Ø32 - 50mm** (2.9mm wall thickness) **Ø55 - 63mm** (2.9- 4.4mm wall thickness) **Ø75 - 82mm** (2.8- 6.7mm wall thickness) **Ø90 - 110mm** (2.7 - 10mm wall thickness) **Ø125mm** (3.1mm wall thickness) **Ø140mm** (3.9 - 5.8mm wall thickness) **Ø160mm** (4.9 - 9.5mm wall thickness)	120	120	EN	50mm	0mm

ROCKWOOL Standard Detail:

Supporting Evidence : UL-EU-01208-CPR

The supporting construction must be capable of achieving the required fire rating of the proposed firestop.

Flexible wall constructions must be installed in accordance with the manufacturer's guidelines. The wall construction should be a minimum thickness of 100mm. This detail can also be applied to rigid wall constructions of 100mm minimum thickness.

All service items should be adequately supported both sides of the firestop to ensure that no load is transferred onto the firestop seal.

Refer to relevant product datasheet for further installation guidelines.

These products should only be utilised for applications as outlined in the relevant ROCKWOOL product data sheet and in accordance with the relevant ROCKWOOL Fire Resistance Testing. Additionally the product must be installed in accordance with the current ROCKWOOL guidelines.

For further information please visit www.rockwool.co.uk or contact our Technical Solutions Team on 01656 868490.

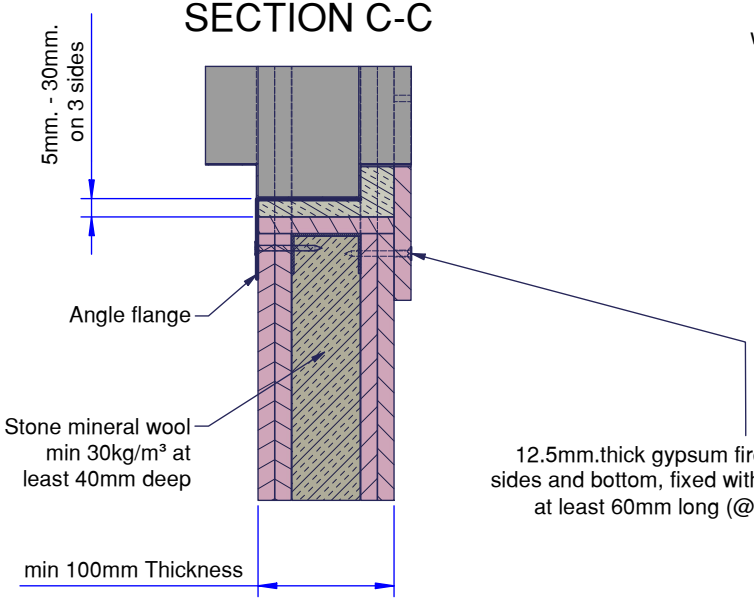
Integrity Performance:	Insulation Performance:
120 mins	120 mins

ROCKWOOL®
Pencoed, Bridgend,
South Wales CF35 6NY
t: 01656 868490
technical.solutions@rockwool.co.uk

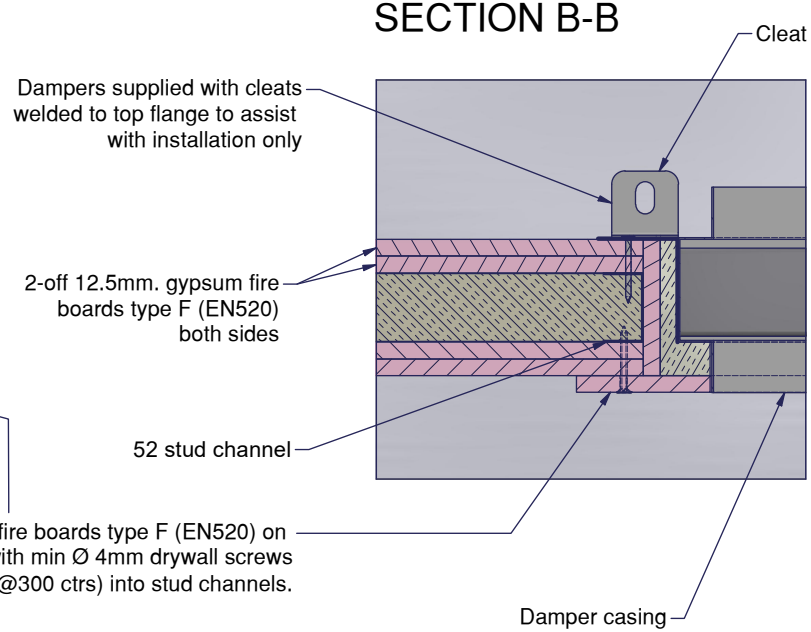
Drawing Title:
PIPE COLLAR CE
Face-fix Ablative Coated Batt

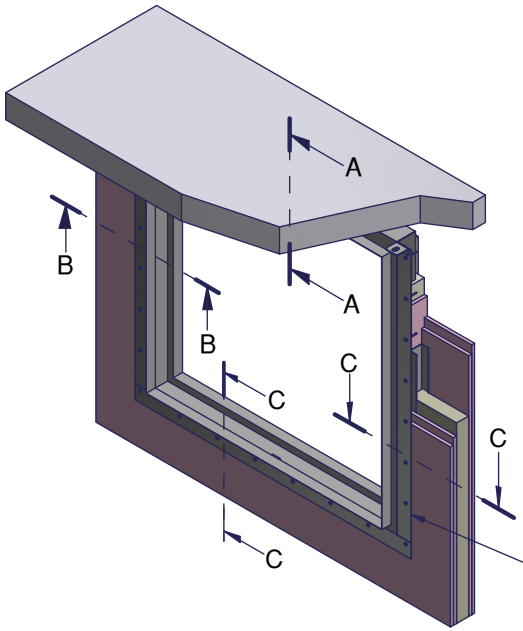
Scale:	Date:	
NTS	FEB 22	
Sheet Size: A3	Drawn By: S. HIRONS	Checked By: L. HAM
Drawing Number: RWSD-COL-0003		Revision: C

SECTION C-C

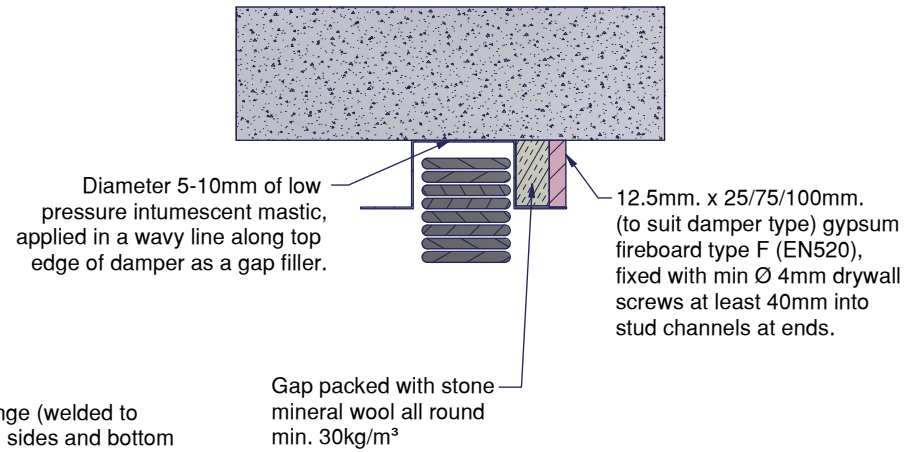


SECTION B-B





SECTION A-A



actionair by Swegon
© Swegon Air Management Limited
South Street, Whitstable, Kent CT5 3DU
Tel: +44 (0)1227 276100
Email: actionair@swegon.com
www.swegon.com/uk

Installation Detail

If your proposed installation details differ from that shown here, please discuss this with the authority having jurisdiction, referencing this documentation.

Deviation from this drawing requires approval of the relevant authority.

Connecting ductwork omitted for clarity. Ductwork must be independently supported. There must be an appropriate break-away joint between the damper and the connecting ductwork on both sides of the installation.

A minimum of 200mm between fire dampers installed in separate ducts and 75mm between fire damper and construction elements/edges needs to be observed unless otherwise specified in the drawing.

SCAN ME

Please refer to the DoP for latest classifications for CE/UKCA compliance and the Installation, Operation and Maintenance Guide

Rev:	Comments:	By:	Date:
F	ECN2227	JPM	29/04/22
E	ECN1941	MJB	14-08-19
D	ECN1922	MJB	12-04-19
C	ECN1909	MJB	27-02-19
B	EC1830	RTC	20/03/18
A	EC1770	MJB	20-02-18

Drawn By:	J. Medwin	Date:	04/11/2016
Checked By:	Kimberley.M	Date:	29/04/2022
Approved By:	Gore.S	Date:	29/04/2022

Description:

VERTICAL APPLICATION

FIRE SHIELD DWFX-F

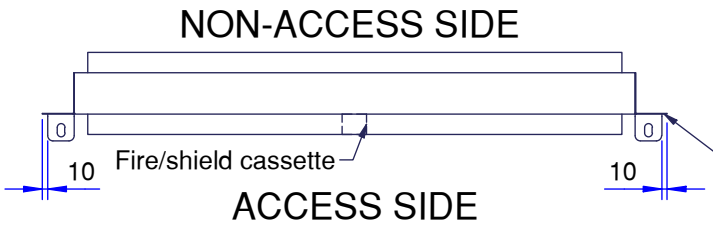
Damper Size Range (mm)
100 x 100 to 1250 x 1000

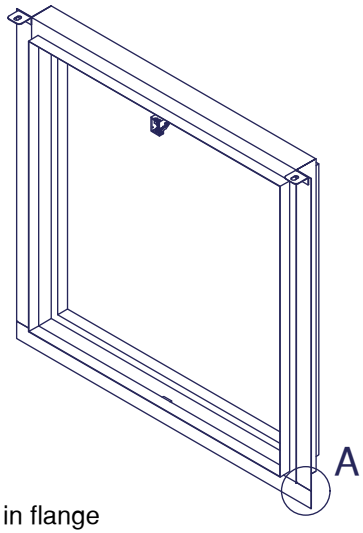
Reference No:	Sheet	Rev
AAF11944	1 of 2	F

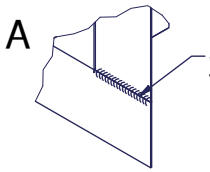
Drawing No:	Sheet	Rev
AAF11944	2 of 2	F

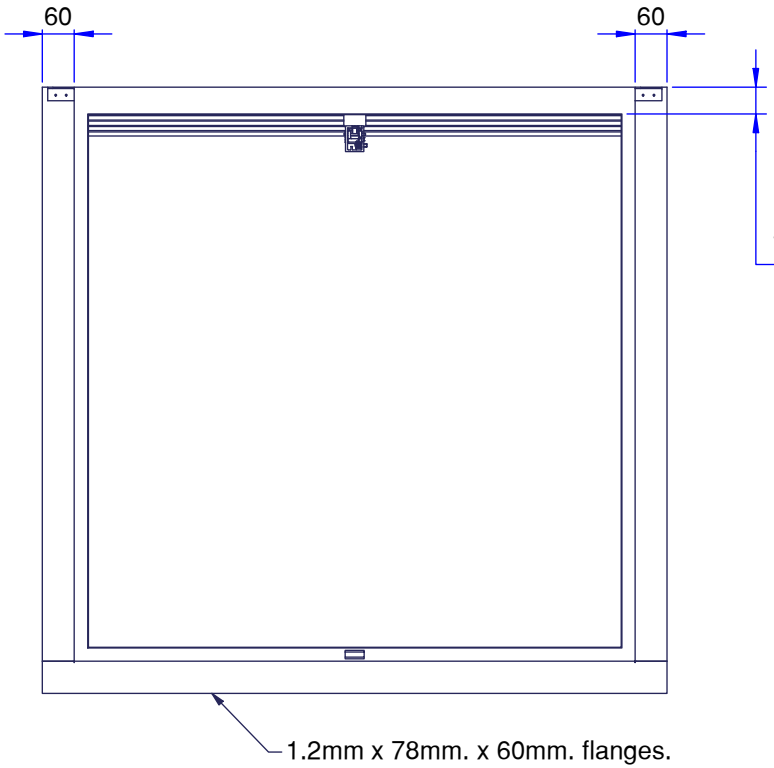
Third Angle Projection | A3

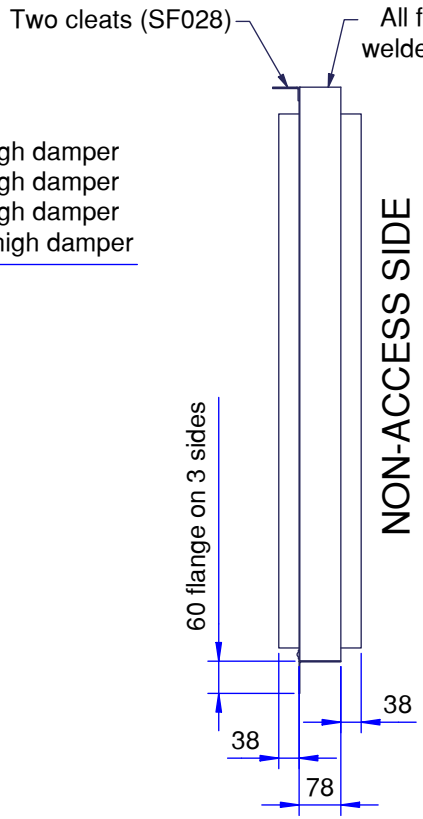
All dimensions in mm. **Do NOT** scale from drawing. If in doubt **ASK!**











actionair by Swegon
© Swegon Air Management Limited
South Street, Whitstable, Kent CT5 3DU
Tel: +44 (0)1227 276100
Email: actionair@swegon.com
www.swegon.com/uk

Assembly Notes

Part No: N/A
Est Weight: N/A

Drawing notes & limits (unless otherwise stated)

No Decimal:	± 1.00mm
One Decimal:	± 0.50mm
Two Decimals:	± 0.25mm
Three Decimals:	± 0.10mm
Angles:	± 2.00 degrees

Critical dims and features shown in red and enclosed in box

Manufacturing Detail

Notes

1. Angle flanges on access side.
2. 1.20mm x 60mm. x 78mm, (m/stl galv.) flange to damper casing welds must be 6-10mm stitch welds, 125mm (max) centres.
3. Two cleats welded to side angles as shown.

Rev:	Comments:	By:	Date:
F	ECN2227	JPM	13/04/22
E	ECN1941	MJB	14-08-19
D	ECN1922	MJB	12-04-19
C	ECN1909	MJB	27-02-19
B	EC1830	RTC	20/03/18
A	EC1770	MJB	20-02-18

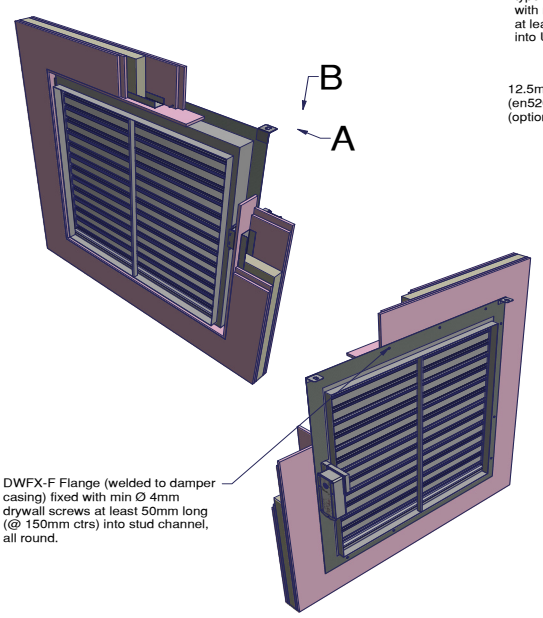
Drawn By:	J. Medwin	*Date:*	04/11/2016
Checked By:	Kimberley.M	*Date:*	29/04/2022
Approved By:	Gore.S	*Date:*	29/04/2022

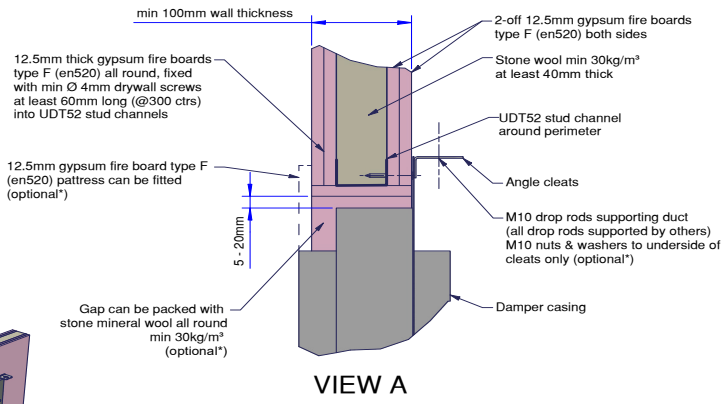
Product: FS
Client: N/A
Project: N/A

Description:
FS damper manufacturing detail for DWFX-F installation in a plasterboard wall against a supporting construction

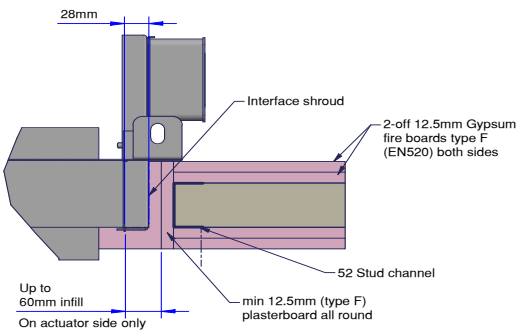
Drawing No:	Sheet	Rev
AAF11944	2 of 2	F

VERTICAL BLADES;
Damper can be installed with the blades in the vertical orientation with the actuator mounted at either the top or bottom. For cleat locations of motors mounted on top refer to drawing AA-SS-2005 and for motors mounted on the bottom refer to drawing AA-SS-2006.





VIEW A



VIEW B
(SIDE DETAIL)

*The damper can be installed with or without drop rods as long as the wall is capable of carrying the load of the damper and with or without the pattress as shown.

The penetration seal can be either filled with a stonewool min30kg/m3 or an ablative coated batt as required or can be left unfilled.

Please see drawing AAF10704, page 2 for alternative configurations:

Vertical Damper Installation in a Plasterboard Wall

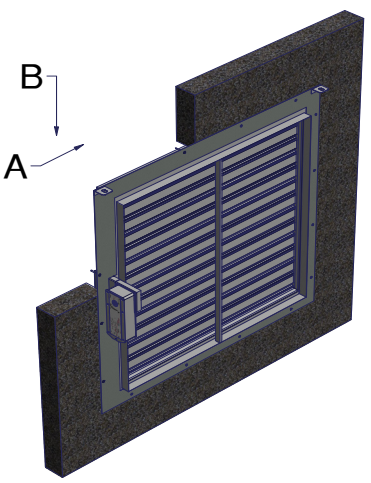
Actionair SmokeShield PTC - [AA/F10704]

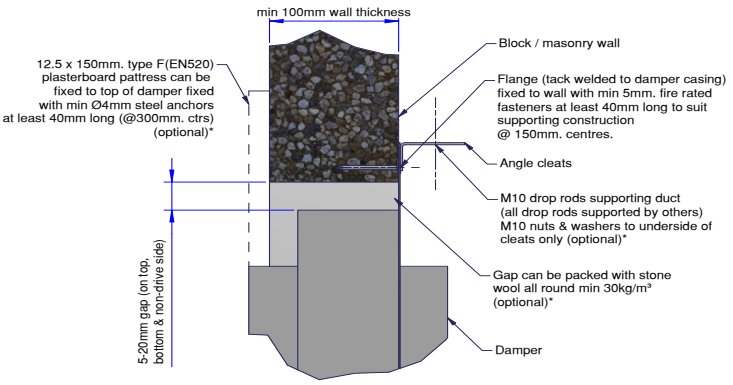
Actionair FireShield - [AA/F10705]

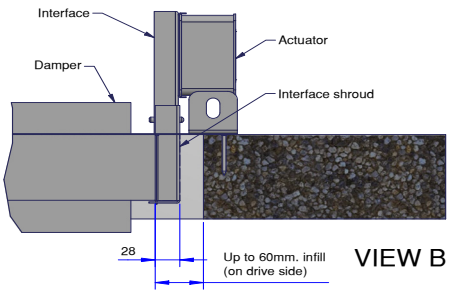
Installation Method

1. Measure the overall Fire damper casing size w x h, but for Smoke Shield include the PTC Shroud (28mm) in the width but do not include any of the peripheral flange.
2. Calculate the hole size using hole sizer program available on www.swegon.com/uk
3. For Fire Shield calculate the finished hole size by adding 10-40mm to the case width and height.
4. For Smoke Shield calculate the finished hole size adding 10-52mm to the width and 10-40mm to the height.
5. Calculate the hole to cut size by adding two board thicknesses to the finished hole width and height.
6. Mark out the hole on the partition and cut it out, cutting the top and bottom edges first to maintain stability.
7. Frame out the hole with stud and track and cover this with board. Finish edges with joint filler.
8. Drill clearance holes in the damper flange at 150mm centres and such that they will allow screws to pull into the stud and track around the hole.
9. Install the damper and fasten.
10. Back fill and complete penetration seal as per the installation drawing
11. Connecting ductwork omitted for clarity. Ductwork must be independently supported. There must be an appropriate break-away joint between the damper and connecting ductwork on both sides of assembly. Aluminium rivets or plastic cleats, clips, clamps and bolts etc. should be used for this, unless fire resisting ductwork is being used where fire resisting fixings should be used. A minimum of 200 mm between fire dampers installed in separate ducts and 75 mm between fire damper and a construction element (wall/floor).

VERTICAL BLADES;
Damper can be installed with the blades in the vertical orientation with the actuator mounted at either the top or bottom. For cleat locations of motors mounted on top refer to drawing AA-SS-2005 and for motors mounted on the bottom refer to drawing AA-SS-2006.







*The damper can be installed with or without drop rods as long as the wall is capable of carrying the load of the damper and with or without the pattress as shown.

The penetration seal can be either filled with a stonewool min30kg/m3 or an ablative coated batt as required or can be left unfilled.

Please see drawing AAF12493 page 2 for alternative configurations:

CE

Vertical Damper Installation in a Masonry Wall

Actionair SmokeShield PTC - [AA/F12493]

Actionair FireShield - [AA/F10707]

Installation Method

1. Drill clearance holes in the damper flange at 150mm centres.
2. Install the damper and fix through flange using fire rated fasteners, min ø4mm.
3. Back fill and complete penetration seal as per the installation drawing
4. Connecting ductwork omitted for clarity. Ductwork must be independently supported. There must be an appropriate break-away joint between the damper and connecting ductwork on both sides of assembly. Aluminium rivets or plastic cleats, clips, clamps and bolts etc. should be used for this, unless fire resisting duct-work is being used where fire resisting fixings should be used. A minimum of 200 mm between fire dampers installed in separate ducts and 75 mm between fire damper and a construction element (wall/ floor).

FD-C Series

Single Blade Circular Fire Dampers – Product Testing

FD-C in Dry Wall

Tested to BS EN 1366-2

The FD-C series damper has been tested both ways, with access side inside the furnace and non-furnace side

Test Conclusions:

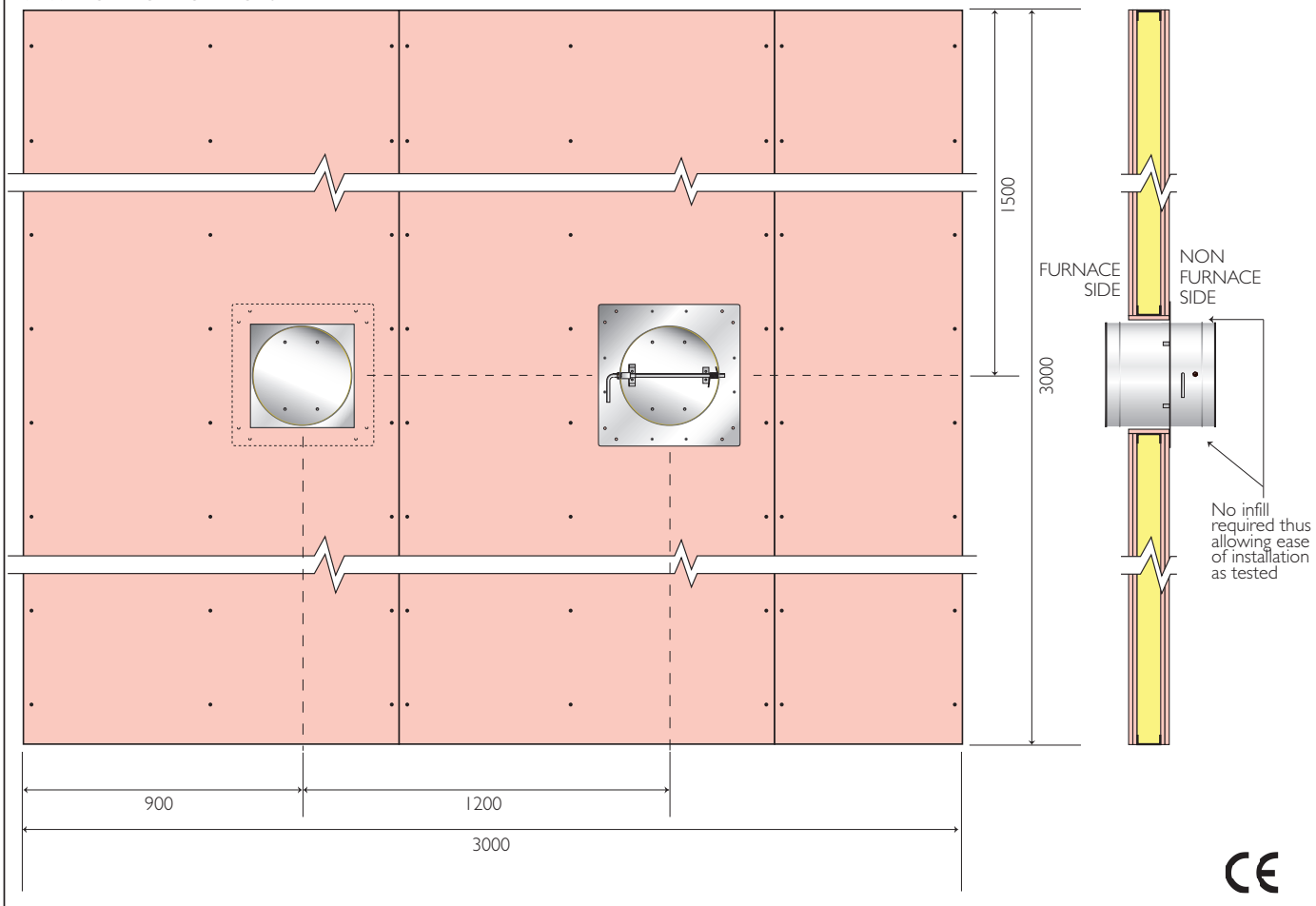
The FD-C damper satisfied the requirements of BS EN 1366-2 and BS EN 13501-3.

Dampers were tested from both sides of the furnace wall.

The FD-C single blade combination fire and volume control damper with its unique feature of requiring only a single installation plate when being installed within tested applications, and without the need for any infill between the damper body and the structure that it sits within.

- Tested to BS EN 1366-2 and classified to BS EN 13501-3
- ES90 integrity and leakage classification.
- Complies with classes A, B & C of DW144.
- Fire and Volume Control dual function

VIEW FROM NON-FURNACE SIDE



FD-C in Blockwork Wall

Tested to BS EN 1366-2

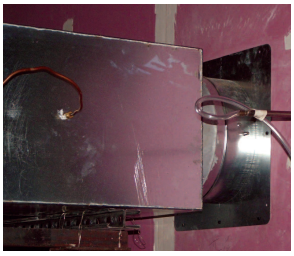
The FD-C series damper has been tested both ways, with access side inside the furnace and non-furnace side.

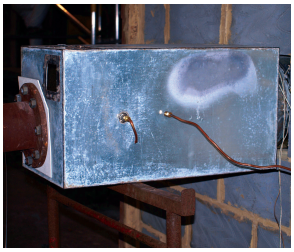
Test Conclusions:

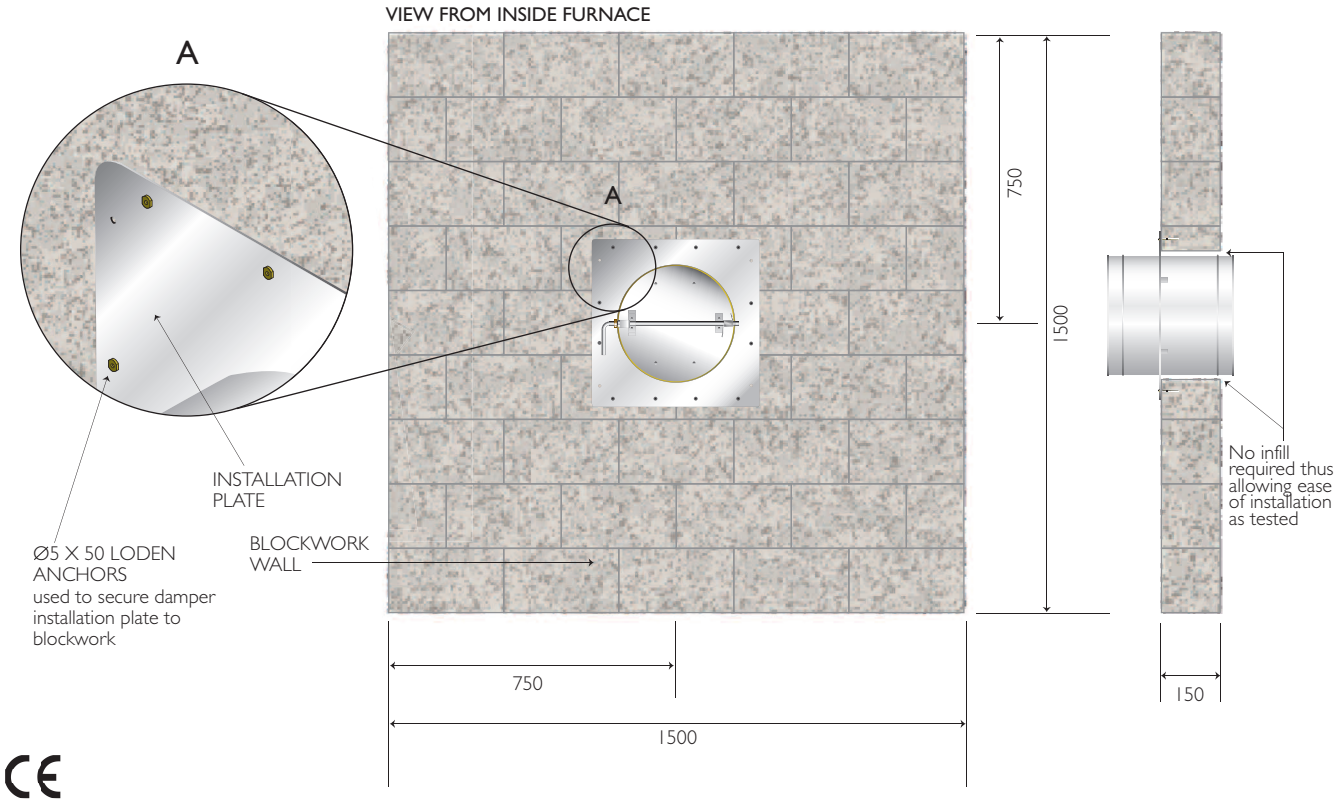
The FD-C damper satisfied the requirements of BS EN 1366-2 and BS EN 13501-3.

Dampers were tested affixed to the non furnace side of the furnace wall with the damper closed blade being fully exposed to the furnace rapid rising temperature.
The achieved ES classification ensures that in a fire condition the non fire side is fully protected (from radiated heat) for the achieved period, providing vital time for the emergency services to respond, ensuring safe passage of escape and protection of contents.

- Tested to BS EN 1366-2 and classified to BS EN 13501-3
- DW145 Method 4 refers
- ES120 integrity and leakage classification
- Complies with classes A, B & C of DW144 and BS EN 1751
- Fire and Volume Control dual function

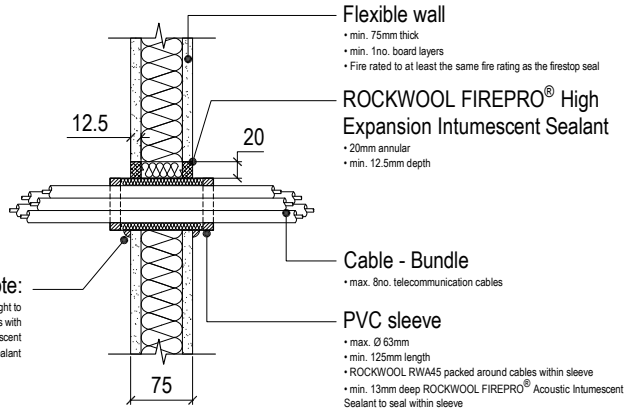






CE

63mm Dia. PVC CONDUIT THROUGH 75mm FLEXIBLE WALL EI 60



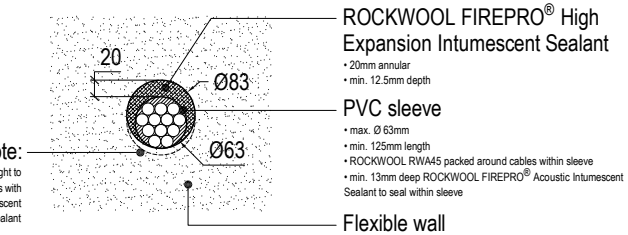
Flexible wall
- min. 75mm thick
- min. 1no. board layers
- Fire rated to at least the same fire rating as the firestop seal

ROCKWOOL FIREPRO® High Expansion Intumescent Sealant
- 20mm annular
- min. 12.5mm depth

Cable - Bundle
- max. 8no. telecommunication cables

PVC sleeve
- max. Ø 63mm
- min. 125mm length
- ROCKWOOL RWA45 packed around cables within sleeve
- min. 13mm deep ROCKWOOL FIREPRO® Acoustic Intumescent Sealant to seal within sleeve

Note:
Where conduit is tight to opening point small gaps with High Expansion Intumescent Sealant



ROCKWOOL FIREPRO® High Expansion Intumescent Sealant
- 20mm annular
- min. 12.5mm depth

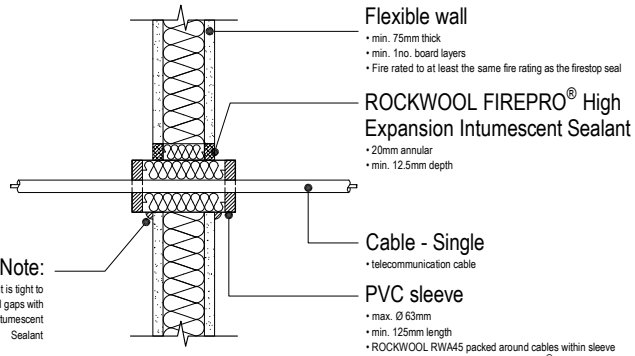
PVC sleeve
- max. Ø 63mm
- min. 125mm length
- ROCKWOOL RWA45 packed around cables within sleeve
- min. 13mm deep ROCKWOOL FIREPRO® Acoustic Intumescent Sealant to seal within sleeve

Flexible wall
- min. 75mm thick
- min. 1no. board layers
- Fire rated to at least the same fire rating as the firestop seal

Note:
Where conduit is tight to opening point small gaps with High Expansion Intumescent Sealant

ELEVATION - 63mm Dia. PVC CONDUIT THROUGH 75mm FLEXIBLE WALL EI 60

63mm Dia. PVC CONDUIT THROUGH 75mm FLEXIBLE WALL EI 60



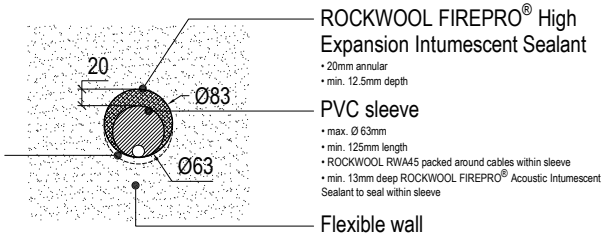
Flexible wall
- min. 75mm thick
- min. 1no. board layers
- Fire rated to at least the same fire rating as the firestop seal

ROCKWOOL FIREPRO® High Expansion Intumescent Sealant
- 20mm annular
- min. 12.5mm depth

Cable - Single
- telecommunication cable

PVC sleeve
- max. Ø 63mm
- min. 125mm length
- ROCKWOOL RWA45 packed around cables within sleeve
- min. 13mm deep ROCKWOOL FIREPRO® Acoustic Intumescent Sealant to seal within sleeve

Note:
Where conduit is tight to opening point small gaps with High Expansion Intumescent Sealant



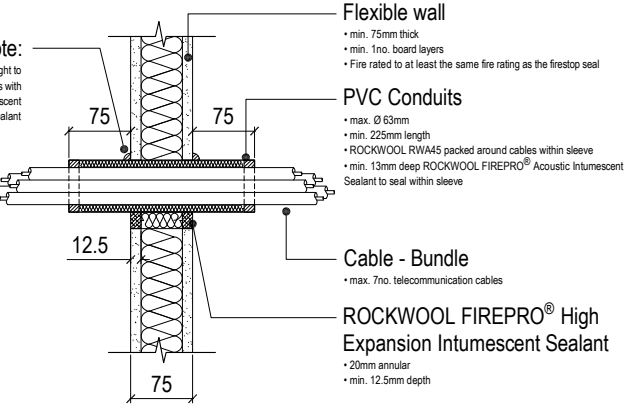
ROCKWOOL FIREPRO® High Expansion Intumescent Sealant
- 20mm annular
- min. 12.5mm depth

PVC sleeve
- max. Ø 63mm
- min. 125mm length
- ROCKWOOL RWA45 packed around cables within sleeve
- min. 13mm deep ROCKWOOL FIREPRO® Acoustic Intumescent Sealant to seal within sleeve

Flexible wall
- min. 75mm thick
- min. 1no. board layers
- Fire rated to at least the same fire rating as the firestop seal

Note:
Where conduit is tight to opening point small gaps with High Expansion Intumescent Sealant

ELEVATION - 63mm Dia. PVC CONDUIT THROUGH 75mm FLEXIBLE WALL EI 60



Flexible wall
- min. 75mm thick
- min. 1no. board layers
- Fire rated to at least the same fire rating as the firestop seal

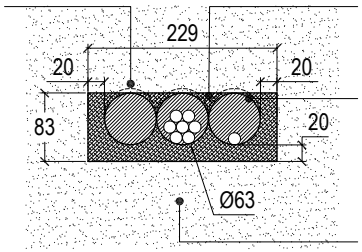
PVC Conduits
- max. Ø 63mm
- min. 225mm length
- ROCKWOOL RWA45 packed around cables within sleeve
- min. 13mm deep ROCKWOOL FIREPRO® Acoustic Intumescent Sealant to seal within sleeve

Cable - Bundle
- max. 7no. telecommunication cables

ROCKWOOL FIREPRO® High Expansion Intumescent Sealant
- 20mm annular
- min. 12.5mm depth

Note:
Where conduit is tight to opening point small gaps with High Expansion Intumescent Sealant

LINEAR ARRANGEMENT OF 63mm Dia. PVC CONDUITS THROUGH 75mm FLEXIBLE WALL EI 60



ROCKWOOL FIREPRO® High Expansion Intumescent Sealant
- 20mm annular
- min. 12.5mm depth

PVC conduits (Linear arrangement)
- max. Ø 63mm - in linear arrangement
- min. 225mm length
- ROCKWOOL RWA45 packed around cables within sleeve
- min. 13mm deep ROCKWOOL FIREPRO® Acoustic Intumescent Sealant to seal within sleeve

Flexible wall
- min. 75mm thick
- min. 1no. board layers
- Fire rated to at least the same fire rating as the firestop seal

Note:
Where conduit is tight to opening point small gaps with High Expansion Intumescent Sealant

LINEAR ARRANGEMENT OF 63mm Dia. PVC CONDUITS THROUGH 75mm FLEXIBLE WALL EI 60

ROCKWOOL Standard Detail:

Supporting Test Data : WF 411460 / WF 411469
(BS EN 1366-3:2009)

The supporting construction must be capable of achieving the required fire rating of the proposed firestop.

Flexible wall constructions must be installed in accordance with the manufacturer's guidelines. The wall construction should be a minimum thickness of 75mm.

All service items should be adequately supported both sides of the firestop to ensure that no load is transferred onto the firestop seal.

Where possible a 20mm annular gap should be maintained around the full circumference of the conduit.

Applications in flexible wall constructions can be used in masonry wall constructions.

Refer to relevant product datasheet for further installation guidelines.

These products should only be utilised for applications as outlined in the relevant ROCKWOOL product data sheet and in accordance with the relevant ROCKWOOL Fire Resistance Testing. Additionally the product must be installed in accordance with the current ROCKWOOL guidelines.

For further information please visit www.rockwool.co.uk or contact our Technical Solutions Team on 01656 868490.

Integrity Performance:	Insulation Performance:
60 minutes	60 minutes

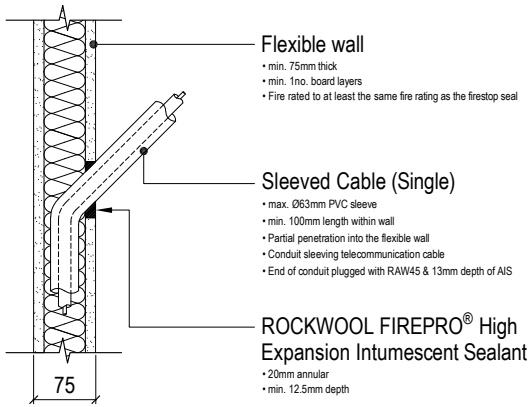
ROCKWOOL®

Pencoed, Bridgend,
South Wales CF35 6NY
t: 01656 868490
technical.solutions@rockwool.co.uk

Drawing Title:
ROCKWOOL FIREPRO® High Expansion Int. Sealant
75mm Flexible Wall - 1no. Board - Conduit Penetrations

Scale:	Date:	
NTS	NOV 20	
Sheet Size: A3	Drawn By: RW TECH	Checked By: L.HAM
Drawing Number: RWSD-HE-0110		Revision: -

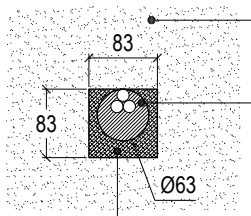
63mm Dia. PVC SLEEVE PARTIAL PENETRATION
75mm FLEXIBLE WALL
EI 90



Flexible wall
- min. 75mm thick
- min. 1no. board layers
- Fire rated to at least the same fire rating as the firestop seal

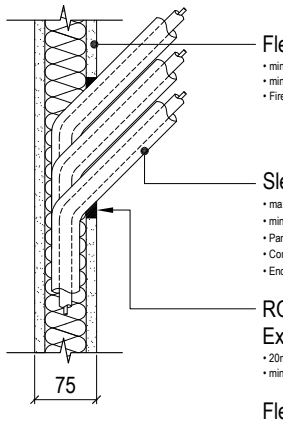
Sleeved Cable (Single)
- max. Ø63mm PVC sleeve
- min. 100mm length within wall
- Partial penetration into the flexible wall
- Conduit sleeving telecommunication cable
- End of conduit plugged with RAW45 & 13mm depth of AIS

ROCKWOOL FIREPRO® High Expansion Intumescent Sealant
- 20mm annular
- min. 12.5mm depth



ELEVATION
63mm Dia. PVC SLEEVE
PARTIAL PENETRATION
EI 90

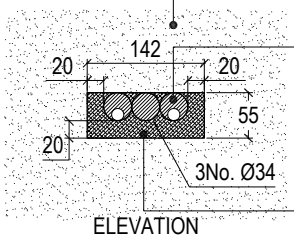
3 No. 34mm Dia. PVC SLEEVES PARTIAL PENETRATIONS
75mm FLEXIBLE WALL
EI 90/60



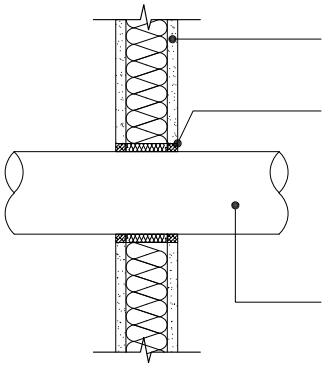
Flexible wall
- min. 75mm thick
- min. 1no. board layers
- Fire rated to at least the same fire rating as the firestop seal

Sleeved Cable (Linear arrangement)
- max. Ø34mm Century Hose sleeve
- min. 100mm length within wall
- Partial penetration into the flexible wall
- Conduit sleeving telecommunication cable
- End of conduit plugged with RAW45 & 13mm depth of AIS

ROCKWOOL FIREPRO® High Expansion Intumescent Sealant
- 20mm annular
- min. 12.5mm depth



ELEVATION
3 No. 34mm Dia. PVC SLEEVE
PARTIAL PENETRATION
EI 90/60

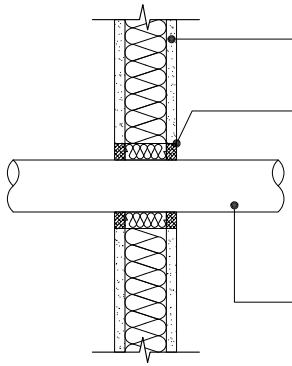


Flexible wall
- min. 75mm thick
- min. 1no. board layers
- Fire rated to at least the same fire rating as the firestop seal

ROCKWOOL FIREPRO® High Expansion Intumescent Sealant
- 10mm annular
- Min. 12.5mm depth
- RWA45 backing material

Galvanized Spiral Duct
- Max. 100mm diameter

100mm Dia. GALV. SPIRAL DUCT THROUGH
75mm FLEXIBLE WALL
E 90 (Integrity Only)



Flexible wall
- min. 75mm thick
- min. 1no. board layers
- Fire rated to at least the same fire rating as the firestop seal

ROCKWOOL FIREPRO® High Expansion Intumescent Sealant
- 20mm annular
- Min. 12.5mm depth
- RWA45 backing material

cPVC Pipe Penetration
- 63mm diameter

63mm Dia. CPVC PIPE THROUGH
75mm FLEXIBLE WALL
EI 90

ROCKWOOL Standard Detail:

Supporting Test Data : WF 411469 (BS EN 1366-3:2009)

The supporting construction must be capable of achieving the required fire rating of the proposed firestop.

Flexible wall constructions must be installed in accordance with the manufacturer's guidelines. The wall construction should be a minimum thickness of 75mm.

All service items should be adequately supported both sides of the firestop to ensure that no load is transferred onto the firestop seal.

For further guidance on partial pipe penetrations refer to ASFP advisory note 13.

Refer to relevant product datasheet for further installation guidelines.

These products should only be utilised for applications as outlined in the relevant ROCKWOOL product data sheet and in accordance with the relevant ROCKWOOL Fire Resistance Testing. Additionally the product must be installed in accordance with the current ROCKWOOL guidelines.

For further information please visit www.rockwool.co.uk or contact our Technical Solutions Team on 01656 868490.

Integrity Performance:	Insulation Performance:
90 minutes	Up to 90 minutes

ROCKWOOL®

Pencoed, Bridgend,
South Wales CF35 6NY
t: 01656 868490
technical.solutions@rockwool.co.uk

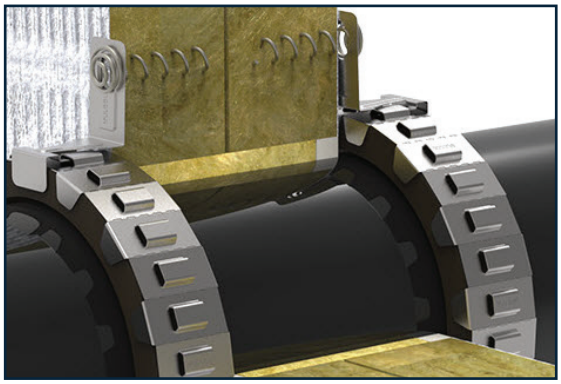
Drawing Title:
ROCKWOOL FIREPRO® High Expansion Int. Sealant
75mm Flexible Wall - 1no. Board - Pipe & Partial Pens.

Scale:	Date:	
NTS	NOV 20	
Sheet Size: A3	Drawn By: RW. TECH	Checked By: L.HAM
Drawing Number: RWSD-HE-0111		Revision: -

Joint Sealings in Coated Batts

Coated batts can be used in combination with flexible walls, rigid walls and rigid floors. The fire barriers must have a minimum thickness of 100 mm (2x50 mm), with a density of at least ≥ ~ 150 kg/m^3.

Joints around service penetrations, with or without insulation, must have a fire-resistant seal to prevent the passage of smoke and hot gases. Multimastic SP fire stopping mastic should be used for this purpose. When the ducts are completely enclosed by fire-stopping rock wool, fire stopping mastic is not required. For more information, see ETA report 17/0836



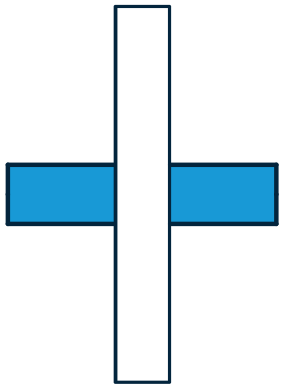
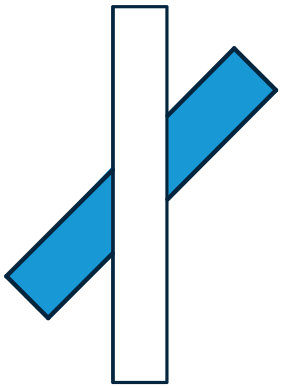
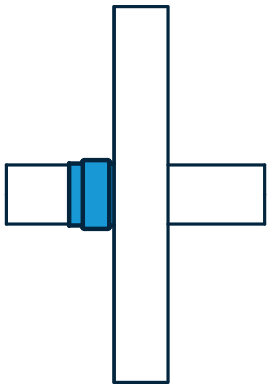
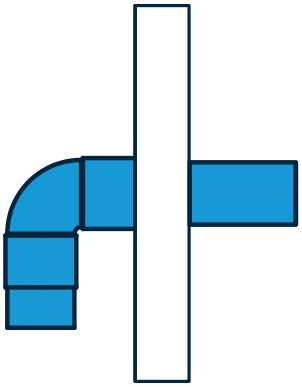
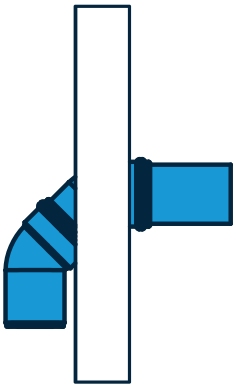
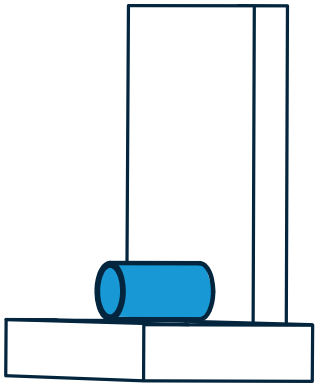
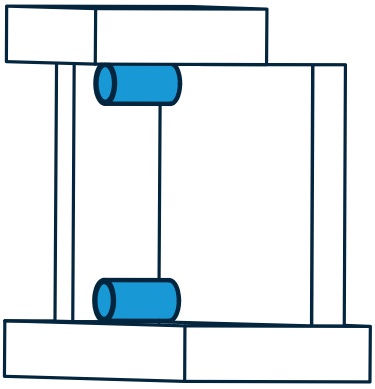
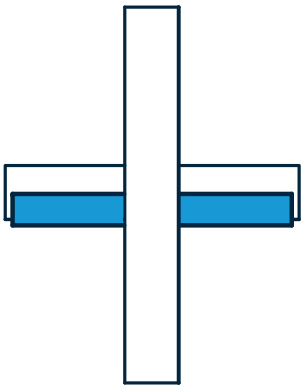
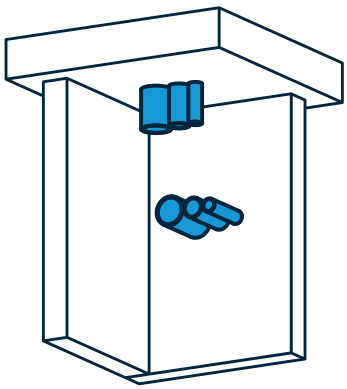
Permissible filling materials for joints around pipe penetrations
Multimastic SP, fire stopping mastic
Joint width: ≤ 20 mm
Depth: ≥ 10 mm, on both sides of the wall

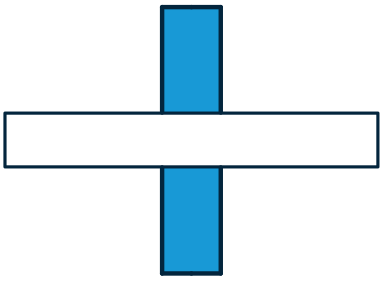
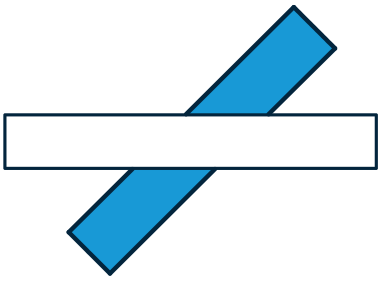
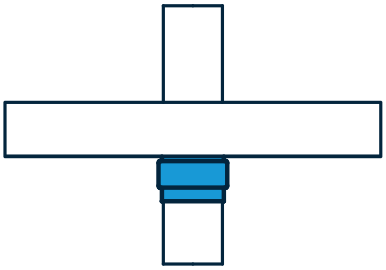
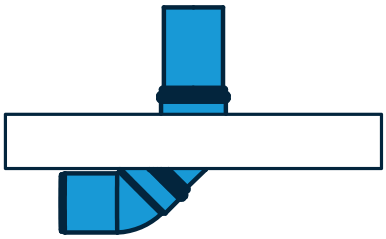
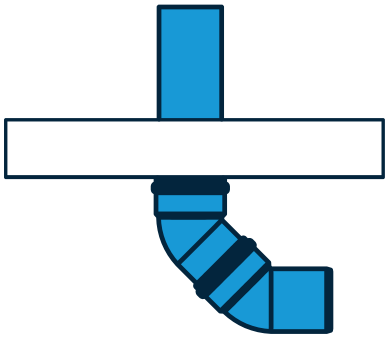
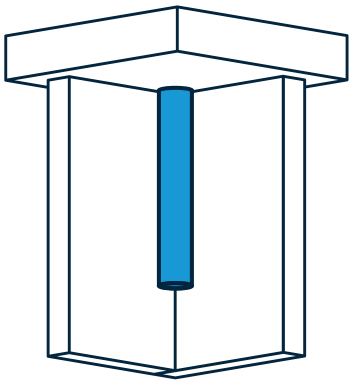
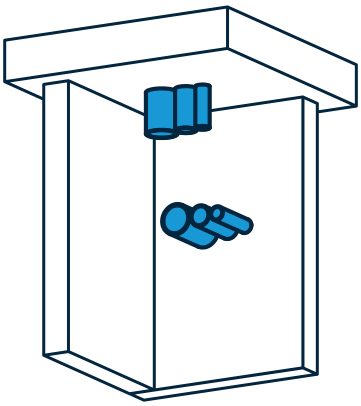
4. Tested Configurations

Plastic Pipes, Uninsulated

Construction	Thickness [mm]	Configuration*	Max. Ø [mm]	Insulation type
Rigid and flexible walls	≥ 100	Straight pipes	Ø 315	n/a
		Inclined pipes ≥ 45° - 90°	Ø 125	
		Coupling elements		
		87° / 90° Elbows		
		Elbow 2 x 45°	Ø 110	
		Corner solutions		
		Support structure	Ø 90	
		Multiple penetrations	Ø 75 (3x)	
Rigid floors	≥ 150	Straight pipes	Ø 315	
		Inclined pipes ≥ 45° - 90°	Ø 125	
		Coupling elements		
		Elbow 2 x 45°	Ø 110	
		Corner solutions	Ø 110	
		Multiple penetrations	Ø 110	
Rock wool coated batts	≥ 2 x 50	Straight pipes		

see the "Tested configurations" table on page 14 and 15

Tested configurations in rigid and flexible walls		
Straight pipes	Inclined pipes ≥ 45° - 90°	Coupling elements
		
87° / 90° Elbows	2 x 45° Elbows	Zero distance (U-shape)
		
Corner solutions	Support structure	Multiple penetrations
		

Tested configurations in rigid floors		
Straight pipes	Inclined pipes ≥ 45° - 90°	Coupling elements
		
Elbows 2 x 45°	2 x 45° Elbows	Corner solutions
		
Multiple penetrations		
		

5. Installation Manual Multicollar *Slim*

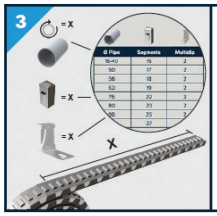
1

Make sure that the service penetration and the gap are free from dust, dirt and grease.

2

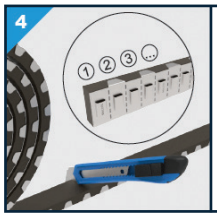
Openings ≤ 20 mm [1] can be sealed with Multisealent A firestop acrylic sealant or Multimastic SP firestop mastic, over a depth of 10 mm.

3



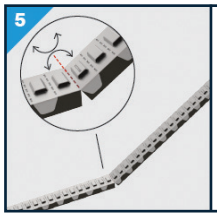
Measure the diameter of the service penetration. See the application table on the packaging (for plastic pipes 2) for the lenght of Multicollar *Slim* (number of segments) and the multiclips required.

4



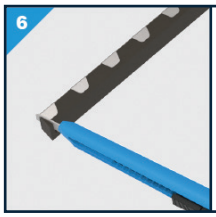
Count the number of Multicollar *Slim* segments required on the roll and then cut through the inlay with a knife.

5



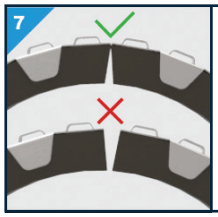
Break the Multicollar *Slim* where it has been cut.

6



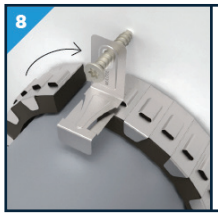
Cut the inlay away with the knife on both sides of the custom-size fire collar.

7



If the stainless-steel joints fit well together, the inlay has been properly cut.

8



Place the fire collar around the service penetration, attach the end of the fire collar with multiclip and secure with the screws provided.

9

Distribute the remaining Multiclips proportionally and secure with screws.

10

Fill in the conformity statement and paste it next to the fireproof seal.

[1] Larger openings around service penetrations can be sealed according to the installation requirements for the Multimastic C System or the Multimortar System.
[2] Steel pipes with insulation, depending on the fire resistance, can be provided with a single fire collar up to a total diameter of 283 mm.

MultiSelector

Information

For use and for more information about an application, refer to the Mulcol documentation, local and international approvals.

See the **Mulcol Fire Protection app** for the correct application in combination with fire resistance, or use **our selector at www.mulcol.com** For professional use only.

MULCOL INTERNATIONAL

6. Performance

Uninsulated Plastic Pipe Penetrations through Flexible Walls, Rigid Walls and Floors **EN 1366-3**

PVC-U / PVC-C pipes	Seal size Ø x s [mm]	Multicollar *Slim* Single	Multicollar *Slim* Dual	Assembly side(s)	Spacing	Construction FW-100	Construction RW-100	Construction RF-150	Classificatie minutes
Straight pipes	≤ 110 x 1,8 - 14,6	✓		2	fig. 1 to 4	✓	✓		≤ EI 90-U/U
	≤ 160 x 1,8 - 14,6		✓						≤ EI 120-U/U
	≤ 315 x 1,8 - 14,6								≤ EI 90-U/C
	≤ 110 x 1,8 - 14,6	✓		1				✓	≤ EI 90-U/U
	≤ 160 x 1,8 - 14,6								≤ EI 120-U/C
	≤ 315 x 1,8 - 14,6		✓						≤ EI 120-U/C
Inclined pipes ≥ 45° - 90°	≤ 110 x 3,4 - 10,0		✓	2	fig. 1 to 4	✓	✓		≤ EI 60-U/C
	≤ 110 x 3,4								≤ EI 120-U/C
	≤ 110 x 2,7	✓							≤ EI 45-U/C
	≤ 125 x 2,5								≤ EI 30-U/C
	≤ 110 x 3,4 - 10,0		✓	1				✓	≤ EI 60-U/U
	≤ 110 x 10,0								≤ EI 90-U/U
87° / 90° Elbows	≤ 125 x 2,5	✓		2	fig. 1 to 4	✓	✓		≤ EI 90-U/U
87° / 90° Elbows, zero distance to wall	≤ 110 x 3,4	✓		2	fig. 1 to 4	✓	✓		≤ EI 120-U/C
Elbow 2 x 45° , zero distance to floor	≤ 50 x 3,0	✓		1	fig. 1 to 4			✓	≤ EI 90-U/C
	≤ 110 x 3,2								≤ EI 45-U/C
Corner solutions	≤ 110 x 2,2 - 2,3	✓		1	fig. 1 to 4	✓	✓	✓	≤ EI 90-U/U
	≤ 110 x 6,3								≤ EI 90-U/U
	≤ 125 x 7,4								≤ EI 60-U/C
Zero distance to floor	≤ 110 x 2,2	✓		1	fig. 1 to 4			✓	≤ EI 90-U/U

PP pipes	Seal size Ø x s [mm]	Multicollar *Slim* Single	Multicollar *Slim* Dual	Assembly side(s)	Spacing	Construction FW-100	Construction RW-100	Construction RF-150	Classification minutes
Straight pipes	≤ 110 x 1,8 - 6,3	✓		2	fig. 1 to 4	✓	✓		≤ EI 120-U/U
	≤ 125 x 1,8 - 7,1								≤ EI 90-U/U
	≤ 125 x 1,8 - 3,1								≤ EI 120-U/U
	≤ 160 x 1,8 - 4,0								≤ EI 90-U/U
	≤ 160 x 9,1								≤ EI 120-U/C
	≤ 40 x 1,8 - 6,3			1				✓	≤ EI 120-U/U
	≤ 110 x 1,8 - 3,6								≤ EI 90-U/U
	≤ 125 x 1,8 - 4,8								≤ EI 60-U/U
	≤ 160 x 1,8 - 14,6								≤ EI 90-U/C
Inclined pipes ≥ 45° - 90°	≤ 110 x 3,4 - 10,0		✓	2	fig. 1 to 4	✓	✓		≤ EI 60-U/C
	≤ 110 x 3,4								≤ EI 120-U/C
	≤ 110 x 2,7	✓							≤ EI 45-U/C
	≤ 110 x 3,4 - 10,0		✓	1				✓	≤ EI 60-U/U
	≤ 110 x 10,0								≤ EI 90-U/U
87° / 90° Elbows	≤ 125 x 3,1	✓		2	fig. 1 to 4	✓	✓		≤ EI 90-U/C
Corner solutions	≤ 110 x 6,3	✓		1	fig. 1 to 4			✓	≤ EI 90-U/U

E: *Integrity*
I: *Thermal insulation*

FW-100: *Flexible wall, 100 mm thick*
RW-100: *Rigid wall, 100 mm thick*
RF-150: *Rigid floor, 150 mm thick*

Ø x S [mm] *Diameter x wall thickness of the penetration*

MULCOL INTERNATIONAL

PE / PE-HD / ABS / SAN+PVC pipes	Seal size Ø x s [mm]	Multicollar *Slim* Single	Multicollar *Slim* Dual	Assembly side(s)	Spacing	Construction FW-100	Construction RW-100	Construction RF-150	Classification minutes
Straight pipes	≤ 110 x 2,4 - 10,0			2	fig. 1 to 4	✓	✓		≤ EI 60-U/U
	≤ 125 x 2,4 - 4,0								≤ EI 90-U/U
	≤ 125 x 2,4 - 4,9								≤ EI 120-U/U
	≤ 110 x 2,4 - 6,6	✓		1				✓	≤ EI 120-U/U
	≤ 125 x 2,4 - 4,9								≤ EI 90-U/U
	≤ 160 x 2,4 - 4,0								≤ EI 60-U/U
	≤ 160 x 14,6								≤ EI 120-U/C
Inclined pipes ≥ 45° - 90°	≤ 110 x 2,7	✓		2	fig. 1 to 4	✓	✓		≤ EI 60-U/C
	≤ 110 x 3,4 - 10,0		✓						≤ EI 120-U/C
	≤ 110 x 10,0			1				✓	≤ EI 90-U/U
Metal supp. half shell	≤ 90 x 2,8	✓		2	fig. 1 to 4	✓	✓		≤ EI 90-U/C
Zero distance to floor	≤ 110 x 2,8	✓		1	fig. 1 to 4			✓	≤ EI 90-U/U
Corner solutions	≤ 110 x 6,6	✓		1	fig. 1 to 4			✓	≤ EI 120-U/U
Coupling elements	≤ 110 x 4,3 - 7,4			2	fig. 1 to 4	✓	✓		≤ EI 60-U/C
	≤ 110 x 4,3	✓							≤ EI 120-U/C
	≤ 110 x 4,3			1				✓	≤ EI 90-U/C
	≤ 125 x 7,4								≤ EI 60-U/C

Low noise pipes [1]	Seal size Ø x s [mm]	Multicollar *Slim* Single	Multicollar *Slim* Dual	Assembly side(s)	Spacing	Construction FW-100	Construction RW-100	Construction RF-150	Classification minutes
Elbow 2 x 45°, Zero distance to wall	≤ 110 x 3,6	✓		2	fig. 1 to 4	✓	✓		≤ EI 60-U/U
	≤ 110 x 6,0								≤ EI 90-U/U
Elbow 2 x 45°, Zero distance to floor	≤ 110 x 6,0	✓		1	fig. 1 to 4			✓	≤ EI 90-U/U
	≤ 110 x 5,3								≤ EI 120-U/U
Corner solutions, zero distance to ceiling	≤ 110 x 6,0	✓		2	fig. 1 to 4	✓	✓		≤ EI 60-U/U
Corner solutions, zero distance to floor	≤ 110 x 6,0	✓		2	fig. 1 to 4	✓	✓		≤ EI 120-U/U
Corner solutions	≤ 110 x 6,6	✓		1	fig. 1 to 4			✓	≤ EI 120-U/C
Coupling elements	≤ 110 x 2,7	✓		2	fig. 1 to 4	✓	✓		≤ EI 120-U/C
Coupling elements	≤ 110 x 6,3	✓		1	fig. 1 to 4			✓	≤ EI 90-U/U
	≤ 110 x 2,7 - 6,0								≤ EI 120-U/C

[1] Permitted low noise pipes
- Coes PhoNoFire
- Coestilen BluePower
- Geberit Silent dB20
- Geberit Silent PP
- Girpi Friaphon
- Marley Silent
- Pipelife Master 3
- PhonEX AS
- Poloplast POLO-KAL NG
- Poloplast POLO-KAL 3S
- REHAU Raupiano Plus
- Skolan dB
- Valsir Triplus
- Wavin AS
- Wavin SiTech+
- DykaSono

E: Integrity
I: Thermal insulation

FW-100: Flexible wall, 100 mm thick
RW-100: Rigid wall, 100 mm thick
RF-150: Rigid floor, 150 mm thick

Ø x S [mm]: Diameter x wall thickness of the penetration

SPARTA SYSTEMS

FIRESTOPPING PROJECT DETAILS

- **Horizontal Details (Through Floors)**

Firestopping Matrix - Through Floors

	Dampers	Cable Trays & Baskets	Plastic Pipes and Conduits	Non Combustible Pipes and conduits
Non Fire Rated	N/A	N/A		
60min Fire Rated	To be discussed and designed separately, Installed in line with Damper Manufacturers Test detail or Separate Agreements	50mm Batt as shuttering tight to the service then trowell on the first 25mm of Compound, allow to cure and then install the remaining 75mm of compound. As detail RWSD-COM-0501 **Achieves 120min Integrity & 60min Insulation** *(Cables should be bunched by M&E and no larger than 100mm)*	**For Oversized Concrete Openings Option 1:** * 40mm - 160mm Dia. PVC, PP & PE Pipes: Install 2 layers of 50mm Batt in the with edges and cuts coated with Acoustic Intumescent Sealant and then sealed at edges with a bead of the same. Then install a Pipe Collar CE suitable for the pipe with 80mm long pig tail fixings into the batt. As Detail RWSD-COL-0503 **Achieves 120min Integrity & 120min Insulation** *Rockwool Compound can be added to the top side of this detail to bring finish flush with floor level but must be installed as a separate install (Email from Ryan at Rockwool 29/03/21) and will not conform to the compound loadings unless the compound is min 75mm thick* **For Oversized Concrete Openings Option 2:** *40mm - 160mm Dia.PVC, PP & PE Pipes; Install centrally within the opening an Insulated Fire Sleeve to suit pipe size, then fill the 150mm depth of the opening with Fire Compound as long as the gap is greater than 15mm. May need shuttering batt from underside. As detail RWSD-IFS-0601 **Achieves 120min Integrity & 60min - 120min Insulation (Ensure that pipe wall thicknesses are observed as per table on detail)** **For Tight(ish) Concrete Openings:** *40mm - 160mm Dia.PVC, PP & PE Pipes (Ensure there is 200mm Service seperation and that pipe wall thicknesses are observed as per table on detail): Install FirePro Pipe Collar fixed from underside. As Detail RWSD-COL-0501 (<10mm gaps can be sealed around the pipe with Acoustic Intumescent Sealant, 11mm - 50mm gaps must be filled with Compound through the full depth of the floor) **Achieves 120min Integrity & 120min Insulation**	**For oversized openings (Pipes lagged with Rockwool H&V):** * Steel Pipes up to 165mm Diameter and Copper Pipes up to 108mm Diameter; Install 50mm Batt as shuttering tight to the services then trowell on the first 25mm of Compound, allow to cure and then install the remaining 75mm of compound. As detail RWSD-COM-0501 or RWSD-COM-0503 **Achieves 120min Integrity & 120min Insulation rating if Pipes are insulated with 40mm Rockwool H&V Section and have spacing, if they are clustered together Copper Pipes will only achieve 45min Insulation Rating.** **For oversized openings (Where they pass through the same opening as a Combustible Pipe):** * The solution installed for the plastic pipe will protect the plastic pipe in the first instance but will also protect the non combustible going through the same constuction as long as spacings are given between pipes as advised, the non combustible pipes can be mastic sealed on underside to keep neat or compounded on top side. Consider Detail RWSD-ACB-0501 **Achieves up to 120min Integrity & 90min Insulation when insulated with min 25mm H&V) (No Insulation rating if not lagged)** **For Tight Concrete Openings:** *Steel Pipes up to 159mm Diameter and Copper Pipes up to 108mm Diameter: No works required as no gap to seal, in the event there is a small gap up to 5mm then seal above and below with Acoustic Intumescent Mastic. **Achieves 60min Integrity (Insulation rating not required on these size pipes)**

Disclaimers

	A	B	C	D
	Dampers (FD M9 & FD_C)	**Cable Trays & Baskets**	**Plastic Pipes and Conduits**	**Non Combustible Pipes and conduits**
ALL	*** 75mm or 100mm depth of compound the can be 500mm wide x any length install 100mm where possible as this works better for 0mm seperation with H&V insulated pipes * 100mm depth of compound can be 750mm x 750mm aperture * Larger apertures will need to be reinforced compound and will carry additional charges. These can be up to 1,500mm wide by any length**			
60min Fire Rated Floors			**M&E have advised they are not insulating pipes through floors, if they are the insulation will be removed locally and the closing device set out in the solutions would be used Combustible pipes must not have joints or bends within 55mm of the surface they are passing through, in order to allow sufficient room for a closing device solution to be installed**	**Any pipes insulated with anything that isn't H&V insulated will either need insulation removing completely or removing and insulating with H&V insulation. If in doubt what thickness of H&V to use then go with 40mm H&V, otherwise ask the question**

INSTALLATION NOTES

A permanent shuttering made from 50mm ROCKWOOL slab (minimum density 140kg/m3) is cut and friction fitted between services and the edges of the floor slab. Firestop Compound is then trowelled over the shutter to a depth of 25mm thick. This is allowed to cure. Further Firestop Compound is then mixed to a pouring grade and tops the seal up to the required depth.

Floor openings

1) A bag of compound to 10 litres water (3:1) by volume. Vary to suit site conditions

2) Set the shuttering into the opening ensuring a tight fit so that once the required depth of Compound is installed it finishes flush with the floor slab/screed unless otherwise specified

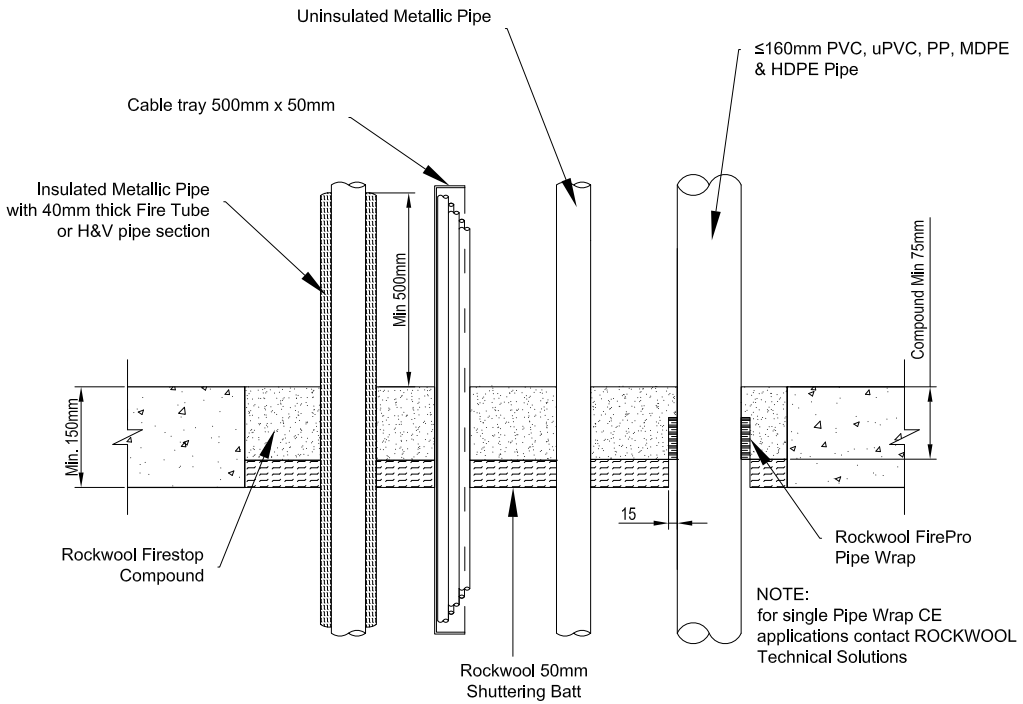
3) Mix and pour compound until the required thickness is achieved.

Reinforcement

Reinforcing of the compound requires either 12mm diameter bars or 40mm (high) x 60mm steel angle fixed across the short span of the aperture. The bars should be installed at 200mm centres across the aperture and may be installed such that they are recessed into the surrounding structure by minimum 50mm on both sides or supported on an steel angle securely fixed to the structure.

Steel angle reinforcement shall be installed at 250mm centres and shall be bolted back to supporting angle, which is fixed back to the structure. The support angle for rod or angle reinforcement shall be 50mm x 50mm x 1.6mm and shall be securely fixed back to the structure with nominally 8mm steel anchor bolts at a maximum of 200mm centres.

In all instances the reinforcement shall be positioned approximately 30mm above the bottom surface of the compound to ensure adequate fire protection from below.



Service type	60 Minutes		90 Minutes		120 Minutes		240 Minutes	
	Integrity	Insulation	Integrity	Insulation	Integrity	Insulation	Integrity	Insulation
75mm Blank seal up to 500 mm x 500 mm*	✓	✓	✓	✓	✓	✓		
100mm Blank seal up to 750 mm x 750 mm*	✓	✓	✓	✓	✓	✓	✓	✓
75mm Seal with services no reinforcement - 500mm x any length*	✓	✓	✓	✓	✓	✓		
100mm Seal with services, Simply Reinforced - 1500mm x any length*	✓	✓	✓	✓	✓	✓	✓	✓
Cable Tray ≤500mm x 50mm	✓	✓	✓	✓	✓		✓	
Bunched cables ≤100 mm	✓	✓	✓		✓			
Electrical cables up to 21mm	✓	✓	✓	✓	✓		✓	
Electrical cables 21mm - 50mm	✓	✓	✓		✓		✓	
Electrical cables 51mm - 80mm	✓		✓		✓		✓	
Steel pipes ≤165 Unlagged	✓		✓		✓		✓	
Steel pipes ≤165 lagged with Fire Tube	✓	✓	✓	✓	✓	✓	✓	
Copper pipes ≤ 108 mm lagged with Fire Tube	✓	✓	✓	✓	✓	✓	✓	
Copper pipes ≤ 108 mm unlagged	✓		✓		✓		✓	
≤160mm PVC, uPVC, PP, MDPE & HDPE pipe Rockwool Pipe Wrap	✓	✓	✓	✓	✓	✓		

* Load bearing performance in line with BS6399 for workspaces and cupboards

ROCKWOOL Standard Detail:

Supporting Evidence : BMTFEIF14015 / WF 518225
WF 436617 / WF 389239 / WF 518794

The supporting construction must be capable of achieving the required fire rating of the proposed Firestop.

All service items should be adequately supported either side of the Firestop to ensure that no permanent load is transferred onto the coated batt.

The Firestop compound is designed to accommodate light foot traffic in line with BS6399 for workspaces and cupboards.

Combustible pipes passing through the compound shall be provided with either ROCKWOOL Firestop Collar or Wrap. It is important to ensure that the collar or wrap shall remain exposed at the soffit (therefore to direct fire exposure). If the shuttering batt is to remain in place then care shall be taken to ensure the intumescent device remains exposed. One option to achieve this would be to use a PE backing rod between the pipe and the batt to ensure the shuttering allows the compound to be poured yet burns away quickly to expose the intumescent. A width of 15mm is suggested.

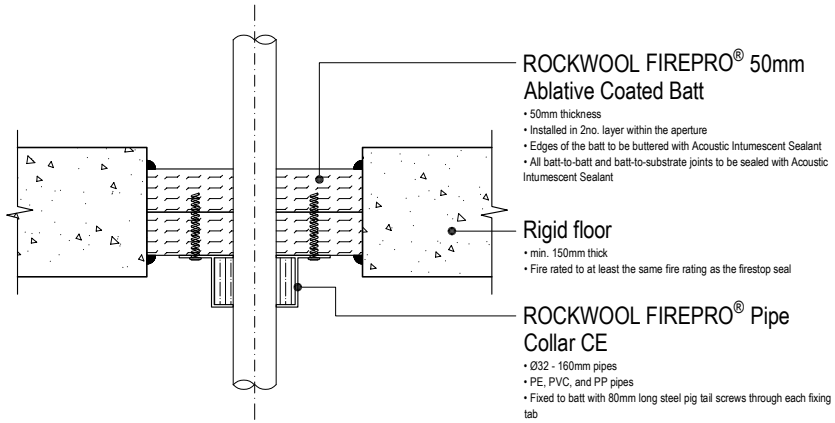
These products should only be utilised for applications as outlined in the relevant ROCKWOOL product data sheet and in accordance with the relevant ROCKWOOL Fire Resistance Testing. Additionally the product must be installed in accordance with the current ROCKWOOL guidelines. For further information please visit www.rockwool.co.uk or contact our Technical Solutions Team on 01656 868490.

Integrity Performance:	Insulation Performance:
Up to 240 minutes	Up to 240 minutes

ROCKWOOL®
Pencoed, Bridgend,
South Wales CF35 6NY
t: 01656 868490
technical.solutions@rockwool.co.uk

Drawing Title:
FireStop Copound
Floor Seal

Scale:	Date:	
NTS	AUG 22	
Sheet Size: A3	Drawn By: RW TECH	Checked By: L.HAM
Drawing Number: RWSD-COM-0501		Revision: -



PVC pipes	PP pipes	PE pipes	Integrity	Insulation
Ø 32mm (1.8mm wall thickness)	**Ø 32mm** (2.9mm wall thickness)	**Ø 32mm** (2.9mm wall thickness)		
Ø 40mm (1.8mm wall thickness)	**Ø 40mm** (2.9mm wall thickness)	**Ø 40mm** (2.9mm wall thickness)		
Ø 50mm (1.8mm wall thickness)	**Ø 50mm** (2.9mm wall thickness)	**Ø 50mm** (2.9mm wall thickness)		
Ø 55mm (2.3 - 2.8mm wall thickness)	**Ø 55mm** (2.9- 4.4mm wall thickness)	**Ø 55mm** (2.9- 4.4mm wall thickness)		
Ø 63mm (2.3 - 2.8mm wall thickness)	**Ø 63mm** (2.9- 4.4mm wall thickness)	**Ø 63mm** (2.9- 4.4mm wall thickness)		
Ø 75mm (3.1 - 4.4mm wall thickness)	**Ø 75mm** (2.8- 6.7mm wall thickness)	**Ø 75mm** (2.8- 6.7mm wall thickness)		
Ø 82mm (3.1 - 4.4mm wall thickness)	**Ø 82mm** (2.8- 6.7mm wall thickness)	**Ø 82mm** (2.8- 6.7mm wall thickness)	120	120
Ø 90mm (4.2 - 6.6mm wall thickness)	**Ø 90mm** (2.7 - 10mm wall thickness)	**Ø 90mm** (2.7 - 10mm wall thickness)		
Ø 100mm (4.2 - 6.6mm wall thickness)	**Ø 100mm** (2.7 - 10mm wall thickness)	**Ø 100mm** (2.7 - 10mm wall thickness)		
Ø 110mm (4.2 - 6.6mm wall thickness)	**Ø 110mm** (2.7 - 10mm wall thickness)	**Ø 110mm** (2.7 - 10mm wall thickness)		
Ø 125mm (6mm wall thickness)	**Ø 125mm** (3.1mm wall thickness)	**Ø 125mm** (3.1mm wall thickness)		
Ø 140mm (6.1 - 7.5mm wall thickness)	**Ø 140mm** (3.5 - 8mm wall thickness)	**Ø 140mm** (3.9 - 5.8mm wall thickness)		
Ø 160mm (6.2 - 9.5mm wall thickness)	**Ø 160mm** (4 - 14.6mm wall thickness)	**Ø 160mm** (4.9 - 9.5mm wall thickness)		

ROCKWOOL Standard Detail:

Supporting Test Data : XXXXXX
The supporting construction must be capable of achieving the required fire rating of the proposed firestop.

All service items should be adequately supported both sides of the firestop to ensure that no load is transferred onto the firestop seal.

Refer to relevant product datasheet for further installation guidelines.

These products should only be utilised for applications as outlined in the relevant ROCKWOOL product data sheet and in accordance with the relevant ROCKWOOL Fire Resistance Testing. Additionally the product must be installed in accordance with the current ROCKWOOL guidelines.

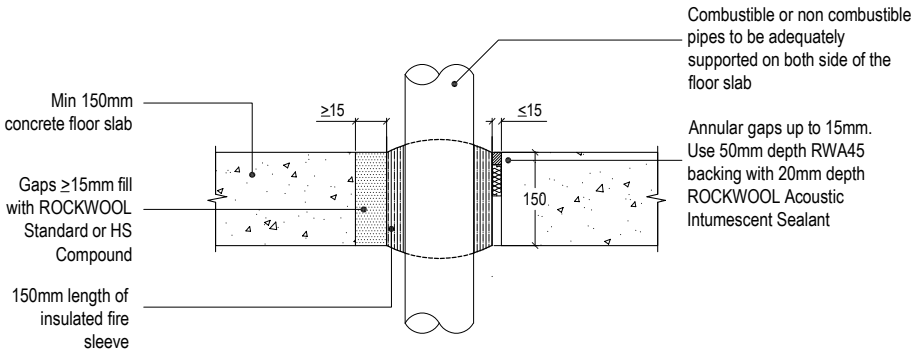
For further information please visit www.rockwool.co.uk or contact our Technical Solutions Team on 01656 868490.

Integrity Performance:	Insulation Performance:
120 mins	120 mins

ROCKWOOL®
Pencoed, Bridgend,
South Wales CF35 6NY
t: 01656 868490
technical.solutions@rockwool.co.uk

Drawing Title:
PIPE COLLAR CE
Ablative Coated Batt Floor Aperture

Scale:	Date:	
NTS	SEP 20	
Sheet Size: A3	Drawn By: S. HIRONS	Checked By: L. HAM
Drawing Number: RWSD-COL-0503-DRAFT		Revision: -



Insulated Fire Sleeve Performance Tables:

Insulated fire sleeve through 150mm AAC slab							
Pipe Material	Pipe Size (mm)	Pipe Wall Thickness (mm)	Substrate	Closure Device	Annular Gap	Classification	
						Integrity	Insulation
PVC	40 - 160	1.8 - 9.5	150mm Aerated concrete slab	IFS - 150mm	15mm - sealed with 20mm deep AIS with 50mm RWA45 backing	180	120
HDPE	40 - 160	2.4 - 9.5					
PP	40 - 160	1.8 - 9.1					60

ROCKWOOL Standard Detail:

Supporting Evidence : WF 416060

The supporting construction must be capable of achieving the required fire rating of the proposed Firestop.

Insulated Fire Sleeve to be minimum 150mm long through floor. For floor thickness less than 150mm please contact ROCKWOOL technical.

Core holes through floors to have a minimum separation of 150mm. For reduced separation please contact ROCKWOOL Technical.

These products should only be utilised for applications as outlined in the relevant ROCKWOOL product data sheet and in accordance with the relevant ROCKWOOL Fire Resistance Testing. Additionally the product must be installed in accordance with the current ROCKWOOL guidelines.

For further information or alternative products please visit www.rockwool.co.uk or contact our Technical Solutions Team on 01656 868490

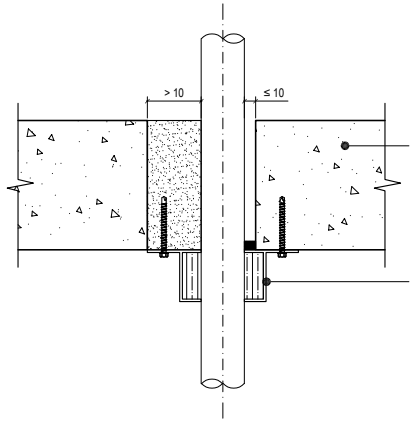
Integrity Performance:	Insulation Performance:
Up to 120 Minutes	Up to 120 Minutes

ROCKWOOL

Pencoed, Bridgend,
South Wales CF35 6NY
t: 01656 868490
technical.solutions@rockwool.co.uk

Drawing Title:
FirePro Insulated Fire Sleeve:
Penetration Seal through Floor

Scale:	Date:	
NTS	NOV 20	
Sheet Size: A3	Drawn By: RW TECH	Checked By: L.HAM
Drawing Number: RWSD-IFS-0601		Revision: B



Service type		Rigid floor (min. 150mm thick) Integrity	Insulation	Test Standard	Service separation Aperture	Services
PVC pipes	**Ø 32 - 50mm** (1.8mm wall thickness) **Ø 55 - 63mm** (2.3 - 3mm wall thickness) **Ø 75 - 82mm** (3.1 - 4.8mm wall thickness) **Ø 90 - 110mm** (4.2 - 7.4mm wall thickness) **Ø 125mm** (6mm wall thickness) **Ø 140mm** (6.1 - 7.5mm wall thickness) **Ø 160mm** (6.2 - 9.5mm wall thickness)	240	240	EN	N/A	200mm
PP pipes	**Ø 32 - 50mm** (2.9mm wall thickness) **Ø 55 - 63mm** (2.9- 4.4mm wall thickness) **Ø 75 - 82mm** (2.8- 6.7mm wall thickness) **Ø 90 - 110mm** (2.7 - 10mm wall thickness) **Ø 125mm** (3.1mm wall thickness) **Ø 140mm** (3.5 - 8mm wall thickness) **Ø 160mm** (4 - 14.6mm wall thickness)	240	240	EN	N/A	200mm
PE pipes	**Ø 32 - 50mm** (2.9mm wall thickness) **Ø 55 - 63mm** (2.9- 4.4mm wall thickness) **Ø 75 - 82mm** (2.8- 6.7mm wall thickness) **Ø 90 - 110mm** (2.7 - 10mm wall thickness) **Ø 125mm** (3.1mm wall thickness) **Ø 140mm** (3.9 - 5.8mm wall thickness) **Ø 160mm** (4.9 - 9.5mm wall thickness)	240	240	EN	N/A	200mm

ROCKWOOL Standard Detail:

Supporting Test Data : CF 5738

The supporting construction must be capable of achieving the required fire rating of the proposed firestop.

All service items should be adequately supported both sides of the firestop to ensure that no load is transferred onto the firestop seal.

Refer to relevant product datasheet for further installation guidelines.

These products should only be utilised for applications as outlined in the relevant ROCKWOOL product data sheet and in accordance with the relevant ROCKWOOL Fire Resistance Testing. Additionally the product must be installed in accordance with the current ROCKWOOL guidelines.

For further information please visit www.rockwool.co.uk or contact our Technical Solutions Team on 01656 868490.

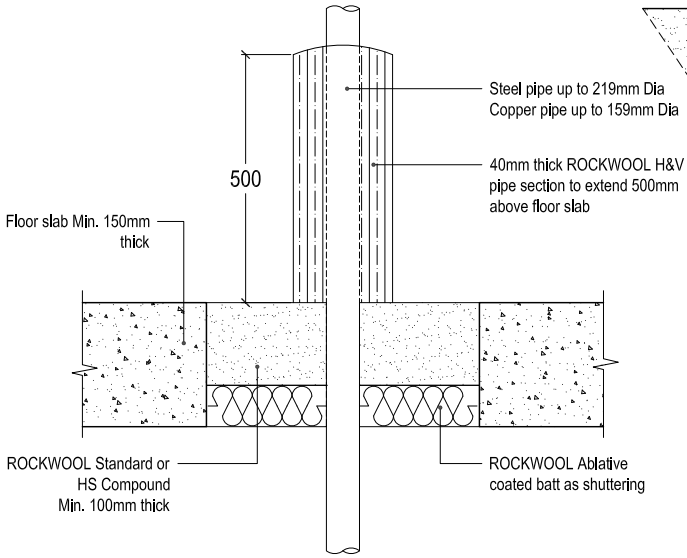
Integrity Performance:	Insulation Performance:
240 mins	240 mins

ROCKWOOL®

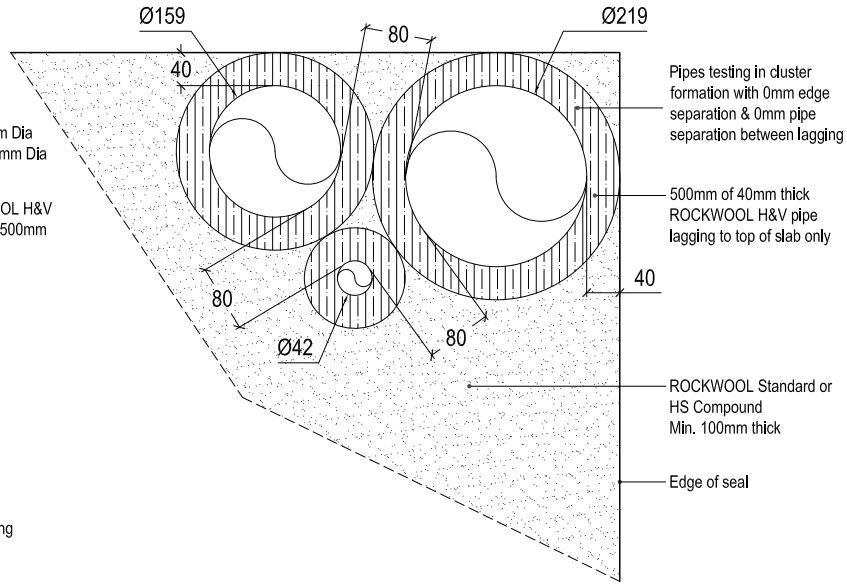
Pencoed, Bridgend,
South Wales CF35 6NY
t: 01656 868490
technical.solutions@rockwool.co.uk

Drawing Title:
PIPE COLLAR CE
Solid Floor

Scale:	Date:	
NTS	SEP 20	
Sheet Size: A3	Drawn By: S. HIRONS	Checked By: L. HAM
Drawing Number: RWSD-COL-0501		Revision: -



COMPOUND SECTION



PLAN VIEW ABOVE SEAL

Performance Table:

Penetration Type/Size (mm)	Formation	Insulation Thickness (mm)	Seal	Service Separation	Substrate Separation	Supporting construction	Performance	
							Integrity	Insulation
Copper 42	Cluster	40mm H&V pipe lagging - 500mm to top of slab only	100mm thick ROCKWOOL Standard Compound	0mm (From lagging)	0mm (From lagging)	150mm thick AAC concrete slab (650 kg/m³)	240	120
Copper 43 - 159							120	45
Steel < 219							240	120

ROCKWOOL Standard Detail:

Supporting Test Data : WF 427399 (BS EN 1366-3)

The supporting construction must be capable of achieving the required fire rating of the proposed fire stop.

Please refer to RWSD-COM-0501 for compound size limitations and other service penetration details.

All service items should be adequately supported on the non fire side of the seal.

The tested cluster formation provides coverage for a linear arrangement.

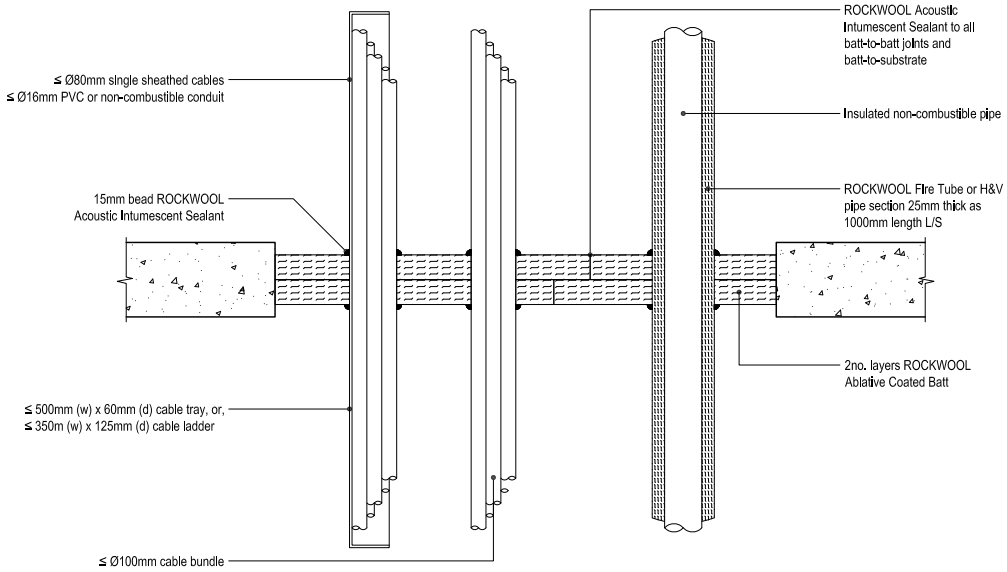
These products should only be utilised for applications as outlined in the relevant ROCKWOOL product data sheet and in accordance with the relevant ROCKWOOL Fire Resistance Testing. Additionally the product must be installed in accordance with the current ROCKWOOL guidelines. For further information please visit www.rockwool.co.uk or contact our Technical Solutions Team on 01656 868490.

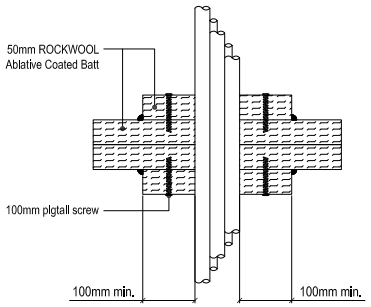
Integrity Performance:	Insulation Performance:
Up to 240 Minutes	Up to 120 Minutes

ROCKWOOL®
Pencoed, Bridgend,
South Wales CF35 6NY
t: 01656 868490
technical.solutions@rockwool.co.uk

Drawing Title:
ROCKWOOL Standard Compound
H&V Pipe Section to top of slab

Scale:	Date:	
N/A	AUG 22	
Sheet Size: A3	Drawn By: RW TECH	Checked By: L.HAM
Drawing Number: RWSD-COM-0503		Revision: A





ADDITIONAL CABLE PROTECTION TO ACHIEVE INSULATION RATING

PERFORMANCE TABLE:

DOUBLE 50MM ABALTIVE COATED BATT 150MM FLOOR								
Service type		Substrate	Seal	Service treatment	Classification		Spacing	
					Integrity	Insulation	Aperture	Identical Services
Blank seal	≤ 1600 x 1100	150mm Concrete Floor (800 kg/m3)	2no, 50mm Ablative Coated Batt	N/A	120	120	N/A	N/A
Electrical cables	≤ Ø ≤15mm				120	90	60mm	0mm
	Ø 16mm - 21mm				120	30	60mm	0mm
	Ø 22mm - 50mm				120	30	60mm	0mm
	Ø 51mm - 80mm				120	30	60mm	0mm
Cable tray	≤ 500mm (w) x 60mm (h) x 1.5mm (t)				120	60	60mm	0mm
Cable ladder	≤ 350mm (w) x 125mm (d) x 1.5mm (t)				120	60	60mm	0mm
Telecomm cables	≤ Ø 100mm bundle				120	120	60mm	0mm
Steel or copper conduits	≤ Ø 16mm				120	-	60mm	0mm
Plastic conduits	≤ Ø 16mm				120	90	60mm	0mm
Electrical cables	Ø ≤15mm			Additional 50mm pattress to both faces of batt	120	120	60mm	0mm
	Ø 16mm - 80mm				120	60	60mm	0mm
Cable tray	≤ 500mm (w) x 60mm (h) x 1.5mm (t)				120	90	60mm	0mm
Cable ladder	≤ 350mm (w) x 125mm (d) x 1.5mm (t)				120	90	60mm	0mm
Unsheathed cables	≤ Ø 17mm				120	90	60mm	0mm
Copper or steel pipe	≤ Ø 42mm			25mm thick H&V pipe section 1000mm length L/S	120	120	0mm	0mm
Copper or steel pipe	≤ Ø 108mm				120	120	0mm	0mm
Steel pipe	≤ Ø 168mm				120	120	0mm	0mm
Steel pipe	≤ Ø 219mm				120	90	0mm	100mm
Steel pipe	≤ Ø 219mm			40mm thick H&V pipe section 1000mm length L/S	120	120	0mm	100mm
Steel or Copper pipe	≤ 42mm		**700mm x 1100mm Max void**	40mm thick 40 Kg/m3 stonewool (RWA45) lagging 300mm both sides of seal L/I	120	120	100mm	100mm

ROCKWOOL Standard Detail:

Supporting Evidence : WF 335645 / WF 330898 / WF 406434 / UL-EU-01208

The supporting construction must be capable of achieving the required fire rating of the proposed Firestop.

The Floor construction should be of a minimum thickness of 150mm. For thinner substrates please contact ROCKWOOL Technical Solutions.

All service items should be adequately supported either side of the Firestop to ensure that no load is transferred onto the coated batt.

Refer to relevant product data sheets for further installation guidelines.

Where no dimension is given for service separation or aperture edge separation the dimension is 100mm. If this does not suit your project requirements please contact ROCKWOOL.

For combustible service penetrations refer to Insulated Fire Sleeve, CE Collar, Pipe Wrap & High Expansion Sealant Details.

These products should only be utilised for applications as outlined in the relevant ROCKWOOL product data sheet and in accordance with the relevant ROCKWOOL Fire Resistance Testing. Additionally the product must be installed in accordance with the current ROCKWOOL guidelines. For further information please visit www.rockwool.co.uk or contact our Technical Solutions Team on 01656 868490.

Integrity Performance:	Insulation Performance:
Up to 120 Minutes	Up to 120 Minutes

ROCKWOOL®
Pencoed, Bridgend,
South Wales CF35 6NY
t: 01656 868490
technical.solutions@rockwool.co.uk

Drawing Title:
ROCKWOOL FIREPRO® 50mm Ablative Coated Batt Double Layer Application Range - Horizontal Seal

Scale:	Date:		
NTS	MAR 22		
Sheet Size:	Drawn By:	Checked By:	
A3	S.HIRONS	L.HAM	
Drawing Number:		Revision:	
RWSD-ACB-0501		-	

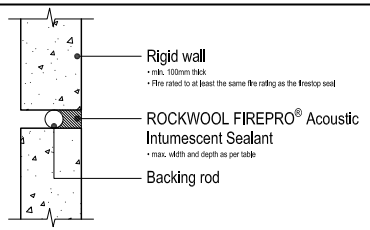
SPARTA SYSTEMS

FIRESTOPPING PROJECT DETAILS

- **Linear Details (Top Of Blockwork and Vertical Gaps Blockwork to Steel)**

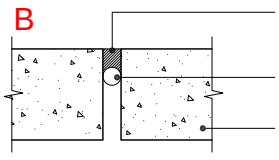
Firestopping Matrix - Linear Seals			
	0mm - 25mm	**25mm - 50mm**	**51mm to 150mm**
Non Fire Rated Plasterboard Partitions	** Install 15mm bead of Intumescent Acoustic Mastic*	** Push fit rockwool insulation into the gap (tight fit) leaving 15mm to face of the wall then install a 15mm deep bead of Rockwool Acoustic Intumescent Sealant that finishes flush with face of the wall. This should be each side.*	** Install Single 50mm Ablative batt centrally above the wall then Intumescent Acoustic Mastic to the edges. For optimum acoustics install double batt (one finishing flush with each side of a partition).*
60min Fire Rated Plasterboard Partitions **120min Fire Rated Walls**	* **Blockwork Wall to Concrete Soffit** - 10mm - 25mm deep bead of Rockwool Acoustic Intumescent Sealant can be installed to a gap size of 20mm - 50mm. The depth of the Mastic will always be 50% of the width being sealed i.e. a 50mm gap must have a 25mm deep bead of sealant. RWA45 or PE Rod to be used as backing. As detail RWSD-AIS-0001 (A) **Achieves 120min Integrity & 30-60min Insulation (This rating is acheived by installing from 1 side only, would only need to be installed form both sides if there is a twin block wall with cavity)** *** Blockwork Wall to Steel Beam** - 10mm - 25mm deep bead of Rockwool Acoustic Intumescent Sealant can be installed to a gap size of 20mm - 50mm. The depth of the Mastic will always be 50% of the width being sealed i.e. a 50mm gap must have a 25mm deep bead of sealant. RWA45 or PE Rod to be used as backing. As detail RWSD-AIS-0001 (C) **Gaps up to 20mm achieve 120min Integrity & 30min Insulation** **Gaps 21mm - 50mm Achieves 45min Integrity & 30min Insulation (This rating is acheived by installing from 1 side only, would recommend installing from both sides in order to achieve 60min Integrity** * **Plasterboard Wall to Concrete Soffit at Head of Wall** - 25mm deep bead of Rockwool Acoustic Intumescent Sealant to a maximum gap size of 20mm (Head track acts as backing). As detail RWSD-AIS-0001 (F) **Achieves 120min Integrity & 120min Insulation** * **Plasterboard to Masonry (Vertical abutment)** - 12.5mm deep bead of Rockwool Acoustic Intumescent Sealant to a maximum gap size of 20mm. RWA45 or PE Rod to be used as backing. As detail RWSD-AIS-0001 (E) **Achieves 120min Integrity & 120min Insulation** **If another scenario such as above walls to profiled deck then use the >50mm Details**		* Blockwork Wall to Flat Concrete or Steel Soffit (Can achieve 2.6m high seal if installed in landscape or 1,200mm high seal if installed in portrait): Install **60mm Ablative batt** centrally above the wall then Intumescent Acoustic Mastic to the edges. If up to steelwork it will also need an additional 150mm rip of batt eaither side which is to be mechanically fixed as shown. As per detail RWSD-ACB-1301 **Achieves 60min Integrity & 60min Insulation** <u>Where greater than 60min Required or where not to a flat soffit (or both):</u> Option A: Supply and install AIM Firestop Blocks to fit profile of Metal Deck **Achieves up to 120min Integrity & Insulation** Option B (If above blockwork) Compression fit Linear Firestop 2a ensuring it is compresses by at least 5%. As per detail RWSD-LTF-0001 **Achieves 120min - 240min Integrity & Insulation**

A



VERTICAL SEAL
ACOUSTIC INTUMESCENT SEALANT BETWEEN CONCRETE SUBSTRATES

B



ROCKWOOL FIREPRO® Acoustic Intumescent Sealant
• max. width and depth as per table

Backing rod

Rigid floor
• min. 150mm thick
• Fire rated to at least the same fire rating as the firestop seal

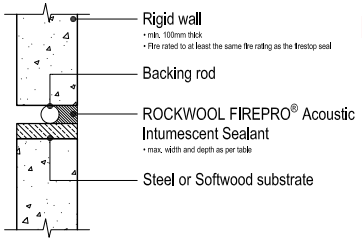
HORIZONTAL SEAL
ACOUSTIC INTUMESCENT SEALANT BETWEEN CONCRETE SUBSTRATES

Rockwool advised by phone (23/11/22) that this top table can be used for Top of Blockwork Walls to Concrete Soffit & RWA45 can be used as Backing

Substrate	min. Substrate thickness (mm)	max. width (mm)	min. Depth (mm)	Backing material	Single sided seal	Performance (mins) Integrity	Performance (mins) Insulation	Standard
Concrete wall / concrete wall	100	20	12.5	Ø 20mm PE rod		120	120	EN
		20	10	Ø 20mm PE rod	✓	120	45	EN
		30	15	Ø 30mm PE rod	✓	120	30	EN
		40	20	Ø 40mm PE rod	✓	120	30	EN
		50	25	Ø 50mm PE rod	✓	120	60	EN

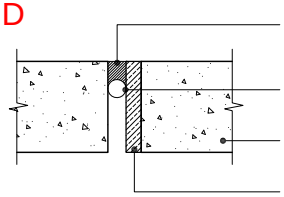
Substrate	min. Substrate thickness (mm)	max. width (mm)	min. Depth (mm)	Backing material	Single sided seal	Performance (mins) Integrity	Performance (mins) Insulation	Standard
Concrete floor / concrete floor	150	20	10	Ø 20mm PE rod	✓	240	45	EN
		50	25	Ø 50mm PE rod	✓	240	90	EN

C



VERTICAL SEAL
ACOUSTIC INTUMESCENT SEALANT BETWEEN CONCRETE AND STEEL OR CONCRETE AND SOFTWOOD SUBSTRATES

D



ROCKWOOL FIREPRO® Acoustic Intumescent Sealant
• max. width and depth as per table

Backing rod

Rigid floor
• min. 150mm thick
• Fire rated to at least the same fire rating as the firestop seal

Steel substrate

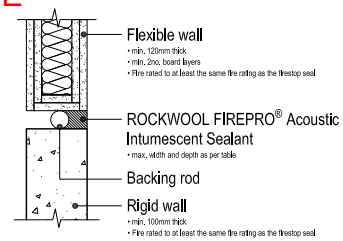
HORIZONTAL SEAL
ACOUSTIC INTUMESCENT SEALANT BETWEEN CONCRETE AND STEEL SUBSTRATES

Substrate	min. Substrate thickness (mm)	max. width (mm)	min. Depth (mm)	Backing material	Single sided seal	Performance (mins) Integrity	Performance (mins) Insulation	Standard
Concrete wall / steel	100	20	10	Ø 20mm PE rod	✓	120	20	EN
		30	15	Ø 30mm PE rod	✓	45	30	EN
		40	20	Ø 40mm PE rod	✓	45	30	EN
		50	25	Ø 50mm PE rod	✓	45	30	EN

Substrate	min. Substrate thickness (mm)	max. width (mm)	min. Depth (mm)	Backing material	Single sided seal	Performance (mins) Integrity	Performance (mins) Insulation	Standard
Concrete wall / softwood	100	20	10	Ø 20mm PE rod	✓	30	15	EN
		30	15	Ø 30mm PE rod	✓	30	15	EN
		40	20	Ø 40mm PE rod	✓	30	15	EN
		50	25	Ø 50mm PE rod	✓	45	30	EN
		50	50	Ø 50mm PE rod	✓	45	45	EN

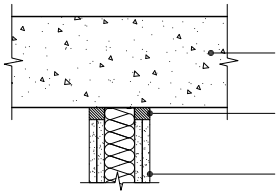
Substrate	min. Substrate thickness (mm)	max. width (mm)	min. Depth (mm)	Backing material	Single sided seal	Performance (mins) Integrity	Performance (mins) Insulation	Standard
Concrete floor / steel	150	20	10	Ø 20mm PE rod	✓	120	20	EN
		50	50	Ø 50mm PE rod	✓	240	90	EN

E



VERTICAL SEAL
ACOUSTIC INTUMESCENT SEALANT BETWEEN CONCRETE AND PLASTERBOARD SUBSTRATES

F



Rigid floor
• Fire rated to at least the same fire rating as the firestop seal

ROCKWOOL FIREPRO® Acoustic Intumescent Sealant
• max. width and depth as per table

Flexible wall
• min. 120mm thick
• min. 2no. board layers
• Fire rated to at least the same fire rating as the firestop seal

HORIZONTAL SEAL
ACOUSTIC INTUMESCENT SEALANT BETWEEN PLASTERBOARD HEAD OF WALL AND CONCRETE SOFFIT

Substrate	min. Substrate thickness (mm)	max. width (mm)	min. Depth (mm)	Backing material	Single sided seal	Performance (mins) Integrity	Performance (mins) Insulation	Standard
Head of wall / concrete soffit	120	20	25	Steel head track		120	120	EN

Substrate	min. Substrate thickness (mm)	max. width (mm)	min. Depth (mm)	Backing material	Single sided seal	Performance (mins) Integrity	Performance (mins) Insulation	Standard
Flexible wall / concrete wall	120	20	12.5	Ø 20mm PE rod		120	120	EN

ROCKWOOL Standard Detail:

Supporting Evidence : ETA-20/1129 / UL-EU-01203-CPR

Where ROCKWOOL insulation is to be used as a backing material then the depth of material to achieve the detailed fire ratings is the width of the joint +10mm.

Movement Accommodation: +/- 12% of Joint Width

All surfaces must be thoroughly cleaned and free of bond breaking contaminants prior to application of the sealant.

The supporting construction must be capable of achieving the required fire rating of the proposed Firestop.

These products should only be utilised for applications as outlined in the relevant ROCKWOOL product data sheet and in accordance with the relevant ROCKWOOL Fire Resistance Testing. Additionally the product must be installed in accordance with the current ROCKWOOL guidelines. For further information please visit www.rockwool.co.uk or contact our Technical Solutions Team on 01656 868490

Integrity Performance:	Insulation Performance:
See Table	See Table

ROCKWOOL®
Pencoed, Bridgend,
South Wales CF35 6NY
t: 01656 868490
technical.solutions@rockwool.co.uk

Drawing Title:
FIREPRO® Acoustic Intumescent Sealant Application Range

Scale:	Date:	
NTS	JUN 21	
Sheet Size: A3	Drawn By: S. HIRONS	Checked By: L. HAM
Drawing Number: RWSD-AIS-0001		Revision: B

INSTALLATION NOTES

1. Make sure that the area within the aperture is clean of any debris and remove any dust from the edges.

2. Install the Rockwool Ablative Coated Batts either vertically to a maximum height of 1.2m x any length or horizontally using a stretcher bond pattern up to a maximum height of 2.6m x any length.

3. Apply Rockwool Acoustic Intumescent Sealant to the outer edges of the batt to seal the joints between batts and supporting substrates.

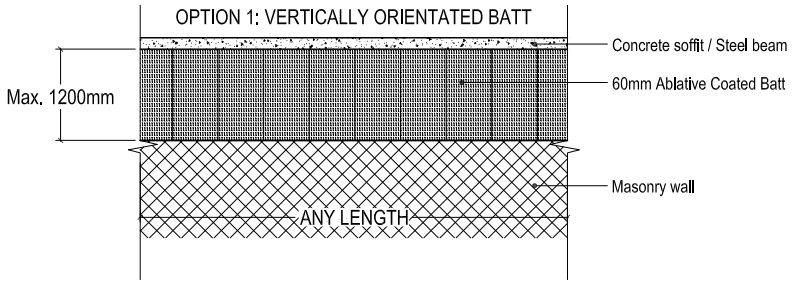
4. Continue installation until the aperture is completely filled.

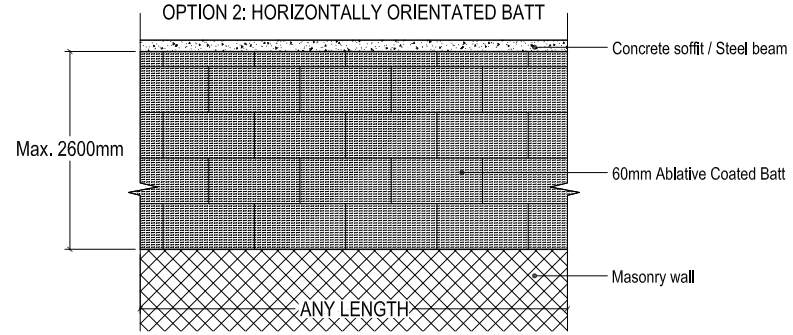
5. Apply a bead of Rockwool acoustic intumescent sealant, approximately 15 mm wide, around the perimeter of the batt ensuring that all gaps between the batt and surrounding edges are fully filled.

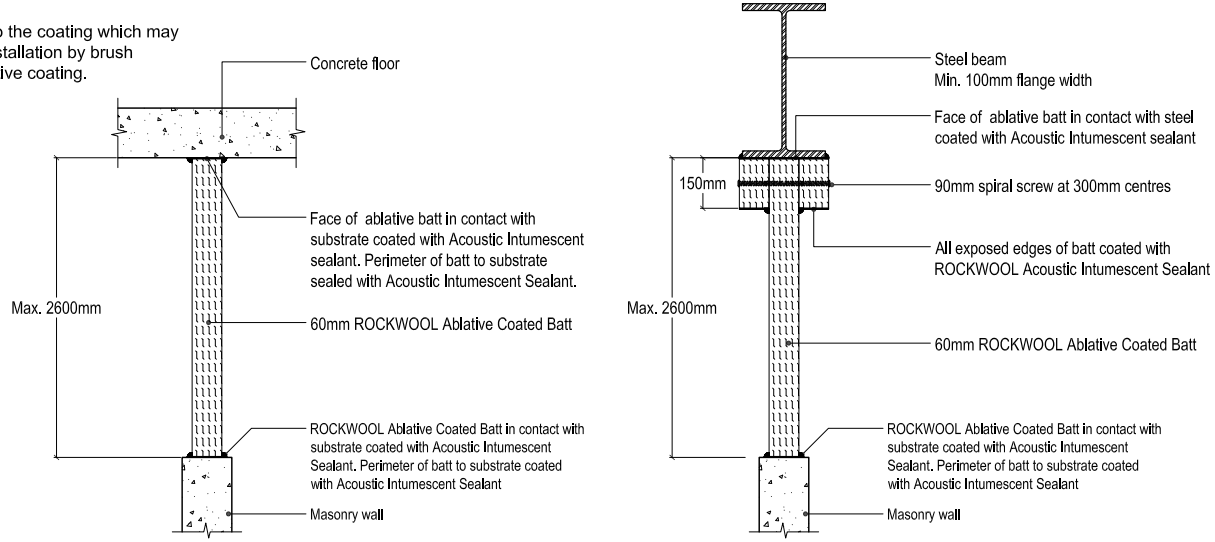
6. Repeat step 5 on the other side of the batt

7. If sealing to the underside of a steel beam install an additional 150mm pattress with 90mm long pigtail screws at 300mm centres to both batt faces along the length of the seal. Ensuring that all exposed edges of the batt are coated with acoustic Intumescent sealant.

8. Repair any damage to the coating which may have occurred during installation by brush applying Rockwool ablative coating.







ROCKWOOL Standard Detail:

Supporting Evidence : WF 311319-3

Maximum Opening Size:

Vertical Batt Joints - 1200m high x any length
Horizontal Batt Joints - 2600m high x any length

The supporting construction must be capable of achieving the required fire rating of the proposed Firestop.

Flexible wall constructions must be installed in accordance with the manufacturer's guidelines with the aperture being fully framed and lined out. The wall construction should be of a minimum thickness of 100mm.

Where the Ablative Coated Batt forms a seal up to a structural beam, which has been protected with intumescent paint then an Insulation rating cannot be given (due to heat transfer through the steel). For applications requiring an insulation rating from the beam then please contact Rockwool Technical for Rockwool Beamclad solutions.

These products should only be utilised for applications as outlined in the relevant ROCKWOOL product data sheet and in accordance with the relevant ROCKWOOL Fire Resistance Testing. Additionally the product must be installed in accordance with the current ROCKWOOL guidelines. For further information please visit www.rockwool.co.uk or contact our Technical Solutions Team on 01656 868490

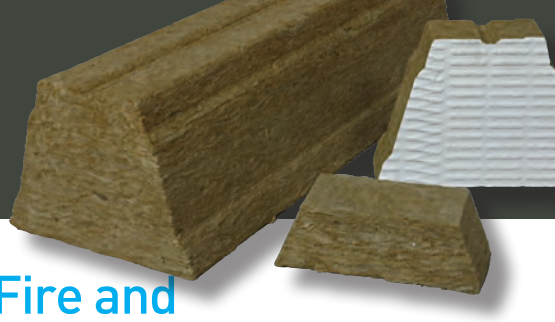
Integrity Performance:	Insulation Performance:
60 Minutes	60 Minutes

ROCKWOOL®
Pencoed, Bridgend,
South Wales CF35 6NY
t: 01656 868490
technical.solutions@rockwool.co.uk

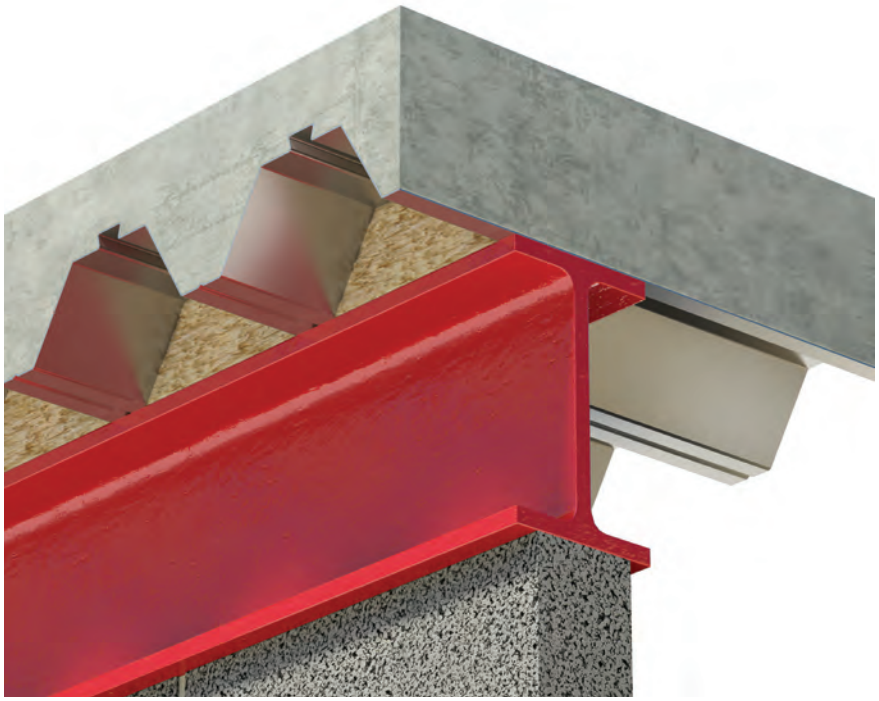
Drawing Title:
60mm Ablative Coated Batt:
Single Layer Head of Wall

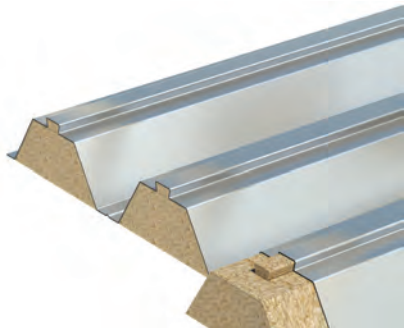
Scale:	Date:	
NTS	OCT 22	
Sheet Size: A3	Drawn By: S.HIRONS	Checked By: L.HAM
Drawing Number: RWSD-ACB-1301		Revision: -

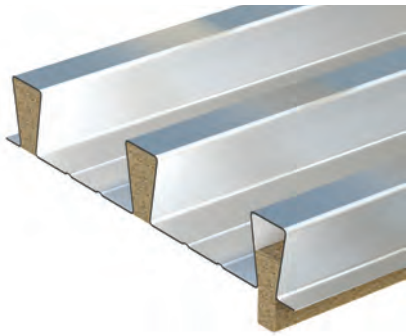
AIM Fire Stop Blocks



AIM High Density Rockwool stone wool Fire and Smoke Stop Blocks for apertures in buildings, especially the flutes of metal profiles







AIM Fire Stop Blocks are made from high density Rockwool stone wool. Incorporated into the building during construction, they are used to seal apertures and are permanently held in place by compression. They can also be used within metal cladding as a fire break and to protect the top flange of steel beams.

ROCKWOOL®

Specification

Minimum block length: 50mm

- No mastics or sealants required
- Tested to BS 476 part 20 and assessed by Warrington Fire Research Centre
- Ozone depletion potential of zero, no CFCs or HCFCs used in manufacture
- Global warming potential = zero

Applications

- Composite Flooring Profiles
- Dovetail Composite Flooring Profiles
- Metal Decking, Roofing and Cladding

Fire Performance

Fire Resistance Minutes	Minimum Length of Fire Stop Block mm Height up to 75mm	Height 76mm –> 300mm
30	50	50
60	60	75
120	75	100
240	100 EHD*	100 EHD*

*EHD = Extra high density barrier with lap joints
EHD is not required for dovetail blocks

Length measures the amount of fire stop material required. The total length may be provided by two shorter blocks (i.e. two 50mm long blocks are suitable for a minimum length requirement of 100mm).

Acoustic Rating

When installed above a partition and where an imperforate 12.5mm plasterboard ceiling is installed to abut the partition below on both sides, the room-to-room sound reduction, on the path of the Fire Stop Block, will be at least 47dB – average sound reduction index.

Installation

AIM Fire Stop Blocks are push fitted into place; they must fit tightly and completely. Dovetail fire stops are supplied as rectangular blocks, which are pinch fitted into the profile, then pushed into place. Slip plates may be used for difficult installations.

Air leakage

AIM ablative coated fire stop blocks provide a robust solution to air leakage requirements. These are available to suit most major cladding and decking profiles. See page 19 (AIM Construction shapes).

Suggested accessory

AIM Intumescent mastic.

GENERAL REQUIREMENTS

Supporting wall structures must have a minimum density of 400 kg/m3

The supporting substrates must have a Fire Resistance performance equal to or greater than that required by the Firestop.

The Joint height from the top of the wall to the underside of the floor slab shall not be greater than the thickness of the wall. The Firestop shall be the same depth of the wall.

INSTALLATION NOTES

1. Ensure the opening is clean and free of any debris.

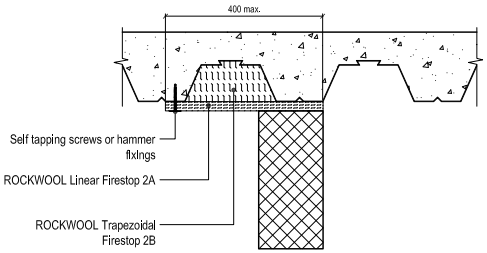
2. Linear Firestop 2A must be fitted as rectangular pieces, tightly butt jointed and compressed by at least 5% thickness.

3. Up to 3 layers may be used. All layers shall be installed simultaneously. The height of the void shall not exceed the width of the Firestop.

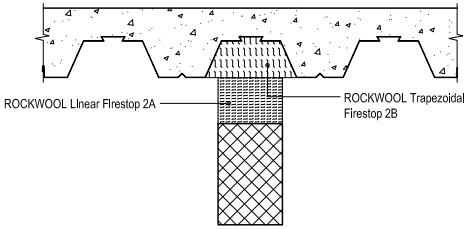
3. Small (nom 10mm) holes should be filled with Rockwool Acoustic Intumescent Sealant.

4. Trapezoidal Firestop 2B shall be ordered to suit the profile type. The Firestop shall be installed under a tight fit.

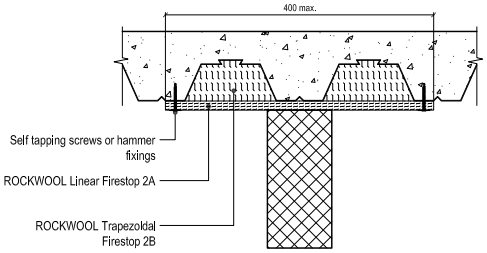
5. Dovetail Infill Firestop Strip shall are supplied as narrow rectangular strips for a pinched installation into the nominated dovetail shaped deck. The Firestop shall be installed with vertical laminations.



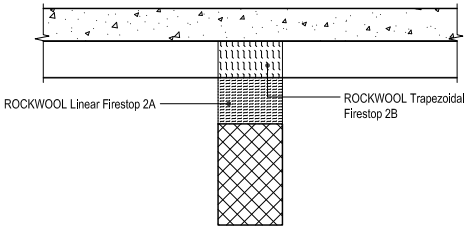
SINGLE DECK PROFILE RUNNING IN LINE, BUT ASYMMETRICAL, WITH THE WALL LINE



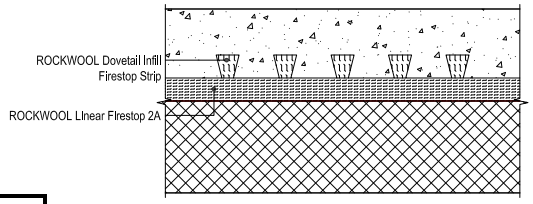
DECK PROFILE RUNNING IN LINE WITH THE WALL



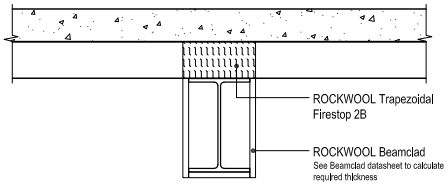
TWO DECK PROFILES RUNNING IN LINE, BUT ASYMMETRICAL, WITH THE WALL LINE



DECK PROFILE RUNNING ACROSS THE WALL



DOVETAIL INFILL FIRESTOP STRIPS RUNNING OVER LINEAR FIRESTOP 2A



DECK PROFILE RUNNING ACROSS A SUPPORTING STEEL BEAM WITH BOX PROTECTION

Wall Thickness	Integrity & Insulation
	2A with 2B
100mm	2 hours
150mm	3 hours
200mm	4 hours

(Note: The above ratings are based on a masonry wall construction with density of 400kg/m³)

ROCKWOOL Standard Detail:

Supporting Evidence : CC 295758

For Air Seal paint linear fire stop with ROCKWOOL Ablative Coating.

This product should only be utilised for applications as outlined in the relevant ROCKWOOL product data sheet and in accordance with the relevant ROCKWOOL Fire Resistance Testing. Additionally the product must be installed in accordance with the current ROCKWOOL guidelines. For further information please visit www.rockwool.co.uk or contact our Technical Solutions Team on 01656 868490

Integrity Performance:	Insulation Performance:
See table	See table

ROCKWOOL®
Pencoed, Bridgend,
South Wales CF35 6NY
t: 01656 868490
technical.solutions@rockwool.co.uk

Drawing Title:
Linear & Trapezoidal Firestop Systems

Scale:	Date:	
NTS	SEP-22	
Sheet Size: A3	Drawn By: S. HIRONS	Checked By: L.HAM
Drawing Number: RWSD-LTF-0001		Revision: -

SPARTA SYSTEMS

FIRESTOPPING PROJECT DETAILS

- **Appendix**

ROCKWOOL®

TECHNICAL EVALUATION

ROCKWOOL REFERENCE:
RWEJ-20230522-03-A

CLIENT:
SPARTA SYSTEMS

PROJECT:
PATHOLOGY BUILDING

FIRE RATING REQUIRMENT:

INTEGRITY:
60 minutes

INSULATION:
N/A

SUPPORTING DATA:

WF 385718 – Double 50mm batt seal cables
WF 411458 – Trunking penetrations
WF 406434 – Large steel pipe
WF 335645-4 – Double 50mm batt FOA

ASSESSOR:

Ruth Barnes (Trainee Assessor)
Fire Technical Consultant

REVIEWER:

Lewis Ham (Senior Assessor)
Fire Protection Technical Lead

CONTACT

ROCKWOOL LIMITED
PENCOED, BRIDGEND,
CF35 6NY
01656 862261

TECHNICAL EVALUATION REQUEST

ROCKWOOL have been formally approached to offer our opinion on the expected fire performance of a 100mm x 100mm SHS and a unistrut channel through a double 50mm ablative coated batt seal within a flexible wall construction.

The following technical evaluation has been produced following the guidance set out in the Passive Fire Protection Forum (PFPF*) Guide To Undertaking Technical Assessments of Fire Performance of Construction Products Based on Fire Test Evidence (2021)*.

This technical evaluation has been prepared and checked by ROCKWOOL product assessors with the necessary competence who follow the principals outlined in the PFPF guidelines to undertaking assessments in lieu of direct fire test data.

ROCKWOOL have adopted the processes outlined in the PFPF guide to manage the conflict of interest inherent with a manufacturers technical evaluation compared to an assessment developed by UKAS accredited third party, allowing for a clear a rigorous examination of the proposal by the approving body.

JUSTIFICATION OF PROPOSAL

(All referenced fire resistance data has been tested in accordance with BS EN 1366-3 unless otherwise stated – this technical evaluation has been requested by FIRAS)

The following assumptions have been made in developing the technical evaluation:

- The flexible wall construction has a proven fire resistance rating which is at least equal to the required performance of the seal.
- The penetrations are non-combustible with a melting or decomposition point higher than the nominal furnace temperature at the intended classification.
- The size of the seals are no greater than those stated on the relevant ROCKWOOL standard details and classification documents.

The following report reviews the available fire resistance test data in support of double 50mm ablative coated batt aperture seals and face fix seals with a SHS & Unistrut penetration within a double skin flexible wall construction for 60 minutes integrity only.

FACE FIX BATT APPLICTIONS

Face fixing ablative coated batts to flexible wall constructions is directly supported for fire resistance periods up to 120 minutes as stated within ROCKWOOL 50mm field of application document (WF 335645-4). Face fix applications achieve higher periods of fire resistance when compared to aperture seal applications, this is because the seal is effectively increased in overall thickness due to the cavity between the two ablative batt layers.

ROCKWOOL®

TECHNICAL EVALUATION

ROCKWOOL REFERENCE:
RWEJ-20230522-03-A

CLIENT:
SPARTA SYSTEMS

PROJECT:
PATHOLOGY BUILDING

FIRE RATING REQUIRMENT:

INTEGRITY:
60 minutes

INSULATION:
N/A

SUPPORTING DATA:

WF 385718 – Double 50mm batt seal cables
WF 411458 – Trunking penetrations
WF 406434 – Large steel pipe
WF 335645-4 – Double 50mm batt FOA

ASSESSOR:

Ruth Barnes (Trainee Assessor)
Fire Technical Consultant

REVIEWER:

Lewis Ham (Senior Assessor)
Fire Protection Technical Lead

CONTACT

ROCKWOOL LIMITED
PENCOED, BRIDGEND,
CF35 6NY
01656 862261

DOUBLE BATT APERTURE SEAL DATA

In line with EN 15882-3:2009 – Extended applications of results from fire resistance tests for service installations - Part 3: Penetration seals. Test data established from double ablative batt aperture seals is relevant for face fix applications as increasing the air gap between batt layers is permitted.

A.2.3 Boards

Variation	Rules
Change of board material	Not permitted
Increase in board thickness	Permitted (supporting evidence for framing systems/fixings must be provided)
Decrease in board thickness	Not permitted
Change in nominal board density	Not permitted
Change of coating material	Not permitted
Change in coating thickness	Not permitted
Change of perimeter / joint adhesive(s) / sealants or gap fillers	Not permitted
Change of air gap between boards	Permitted between the size of air gaps demonstrated by test
Change of internal support frames for boards	Not permitted

Extract from EN 15882-3

The following test references relate to double 50mm ablative batt aperture seals.

UNISTRUT P1000 CHANNEL

The P1000 channel has not been directly tested through a double ablative batt seal but it is our opinion that results from cable trays and cable ladders are relevant for this penetration type. The channel is non combustible with dimensions 41mm x 41mm x 2.5mm thick.

Cable ladders that form part of the standard configuration as defined by BS EN 1366-3 are typically 350mm x 125mm x 1.5mm, similarly cable trays are 500mm x 60mm x 1.5mm. The cable carriers are larger and thinner than the P1000 channel, making them more prone to deflection and movement under fire conditions. The cable carriers are also under load to replicate cable carrier full with cables. In our view these conditions make the standard configuration more onerous than a single P1000 channel.

Fire resistance test WF 385718 consisted of a double 50mm ablative batt seal which was penetrated by the standard cable configuration.

ROCKWOOL®

TECHNICAL EVALUATION

ROCKWOOL REFERENCE:
RWEJ-20230522-03-A

CLIENT:
SPARTA SYSTEMS

PROJECT:
PATHOLOGY BUILDING

FIRE RATING REQUIRMENT:

INTEGRITY:
60 minutes

INSULATION:
N/A

SUPPORTING DATA:

WF 385718 – Double 50mm batt seal cables
WF 411458 – Trunking penetrations
WF 406434 – Large steel pipe
WF 335645-4 – Double 50mm batt FOA

ASSESSOR:

Ruth Barnes (Trainee Assessor)
Fire Technical Consultant

REVIEWER:

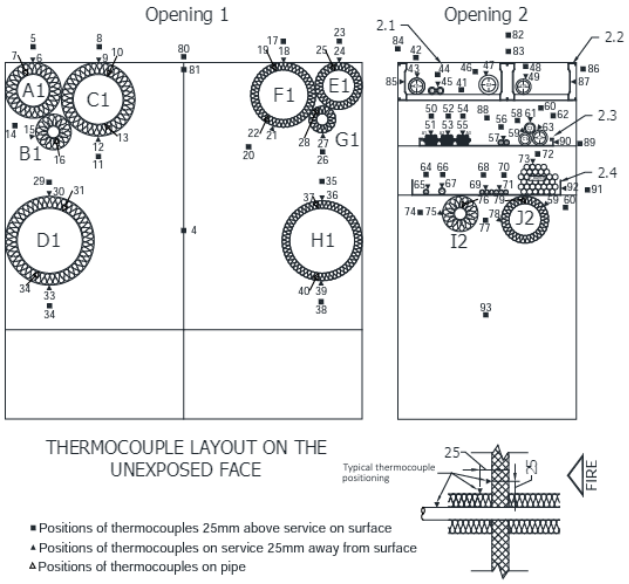
Lewis Ham (Senior Assessor)
Fire Protection Technical Lead

CONTACT

ROCKWOOL LIMITED
PENCOED, BRIDGEND,
CF35 6NY
01656 862261

Item		Description
Cable penetration services		
Position 2.1	:	350 mm wide by 125 mm deep by 1.5 mm thick steel cable ladder supporting one D1, one D2 (each 4 x 185 ²) and two E (1 x 185 mm²) cables. The cable penetrations and ladder are fitted through the wall before the barrier is assembled
Position 2.2	:	250 mm wide by 125 mm deep by 1.5 mm thick steel cable ladder supporting one D3 (4 x 185 mm²) cable. The cable penetration and ladder is fitted through the wall before the barrier is assembled
Position 2.3	:	450 mm wide by 25 mm high by 1.0 mm thick perforated steel cable tray supporting ten A1, ten A2 and ten A3 (each 5 x 1.5 mm²), two B (1 x 95 mm²), one C1, one C2 and one C3 (each 4 x 95 mm²) cables. The cable penetrations and tray are fitted through the wall before the barrier is assembled
Position 2.4	:	500 mm wide by 60 mm high by 1.5 mm thick unperforated steel cable tray supporting a 100 mm² diameter bundle of F (20 x 2 x 0.6 mm²) telecom cables, one G1 (1 x 95 mm²), one G2 (1 x 185 mm2) cables, three rigid I PVC conduits (16 mm diameter by 1.0 mm wall thickness), three rigid H1 steel conduits (16 mm diameter by 1 mm wall thickness), all to the requirements of A.1.10 of EN 1366-3. The cable penetrations and tray are fitted through the wall before the barrier is assembled
Loading of cable trays		
Position 2.1	:	9kg
Position 2.2	:	6kg
Position 2.3	:	15kg
Position 2.4	:	15kg

WF 385718 – Cable carrier specification



WF 385718 – Opening 2 standard cable config. Through double 50mm ablative coated batt

ROCKWOOL®

TECHNICAL EVALUATION

ROCKWOOL REFERENCE:
RWEJ-20230522-03-A

CLIENT:
SPARTA SYSTEMS

PROJECT:
PATHOLOGY BUILDING

FIRE RATING REQUIRMENT:

INTEGRITY:
60 minutes

INSULATION:
N/A

SUPPORTING DATA:

WF 385718 – Double 50mm batt seal cables
WF 411458 – Trunking penetrations
WF 406434 – Large steel pipe
WF 335645-4 – Double 50mm batt FOA

ASSESSOR:

Ruth Barnes (Trainee Assessor)
Fire Technical Consultant

REVIEWER:

Lewis Ham (Senior Assessor)
Fire Protection Technical Lead

CONTACT

ROCKWOOL LIMITED
PENCOED, BRIDGEND,
CF35 6NY
01656 862261

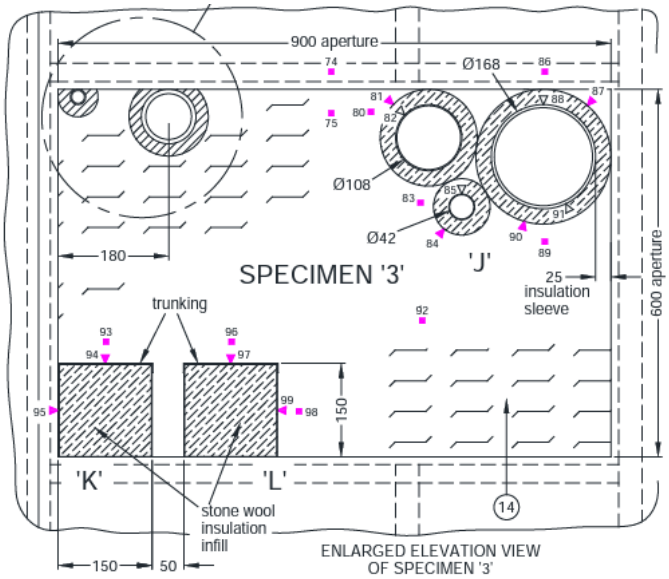
Specimen 2 (Service)	Integrity (minutes)			Insulation (minutes)
	Cotton pad	Sustained flaming	Gap gauge	
350 mm ladder	132*	132*	132*	97
D1	132*	132*	132*	81
E (2No.)	132*	132*	132*	77
D2	132*	132*	132*	120
Position 2.1 Overall	132*	132*	132*	81
250 mm ladder	132*	132*	132*	132*
D3	132*	132*	132*	73
Position 2.2 Overall	132*	132*	132*	73
450 mm perforated tray	126	126	132*	80
A1 (10 No.)	132*	132*	132*	128
A2 (10 No.)	132*	132*	132*	80
A3 (10 No.)	132*	132*	132*	114
B (2 No.)	126	126	132*	58
C1	126	126	132*	65
C3	126	126	132*	69
C2	126	126	132*	74
Position 2.3 Overall	126	126	132*	58

WF 385718 – Test results

The cable carriers within this test consistently achieved a fire resistance rating of over 120 minutes integrity which is a 100% increase in required performance for this scheme which is 60 minutes integrity only. This significant overrun in performance gives us confidence in the unistrut channel achieving at least 60 minutes integrity when penetrating a double 50mm ablative batt seal.

100MM X 100MM x 3.6MM SQUARE HOLLOW SECTION (SHS)

SHS are not defined within BS EN 1366-3 and at this time ROCKWOOL have no supporting direct test data. With this in mind we make reference to our trunking testing. As detailed in RWSD-ACB-0103 (WF 411458) a 100mm x 100mm x 1.2mm trunking achieves a fire resistance rating of 60 minutes integrity when sealed by a double 50mm ablative batt seal in a flexible wall. Trunking / containment is thinner gauge than a SHS which make them more prone to deflection under fire conditions. The more onerous trunking archives a fire resistant rating equal to that required for this scheme at 60 minutes integrity.



WF 411458 – Specimen 3 K&L 100x100x1.2mm trunking

ROCKWOOL®

TECHNICAL EVALUATION

ROCKWOOL REFERENCE:
RWEJ-20230522-03-A

CLIENT:
SPARTA SYSTEMS

PROJECT:
PATHOLOGY BUILDING

FIRE RATING REQUIRMENT:

INTEGRITY:
60 minutes

INSULATION:
N/A

SUPPORTING DATA:

WF 385718 – Double 50mm batt seal cables
WF 411458 – Trunking penetrations
WF 406434 – Large steel pipe
WF 335645-4 – Double 50mm batt FOA

ASSESSOR:

Ruth Barnes (Trainee Assessor)
Fire Technical Consultant

REVIEWER:

Lewis Ham (Senior Assessor)
Fire Protection Technical Lead

CONTACT

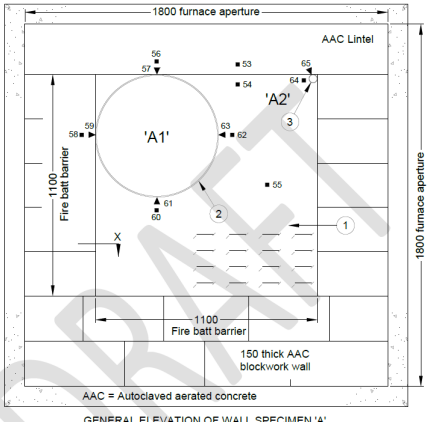
ROCKWOOL LIMITED
PENCOED, BRIDGEND,
CF35 6NY
01656 862261

3 / H	60*	60*	60*	60*
3 / I	60*	60*	60*	60*
3 / J	60*	60*	60*	60*
3 / K	60*	60*	60*	60*
3/ L	60*	60*	60*	60*
3 / Seal	60*	60*	60*	60*
3 / Overall	**60***	**60***	**60***	60*

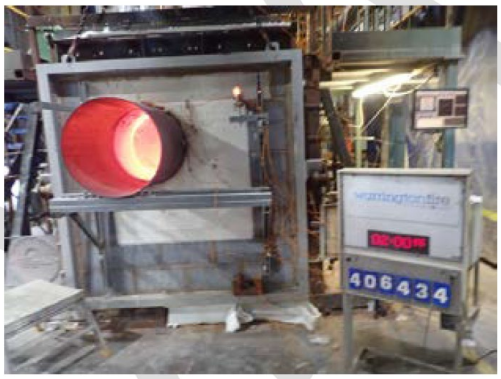
WF 411458 – Specimen 3 K&L 60 minutes integrity

We also make reference to WF 406434 (Draft)**.** In this test an unlagged 610mm x 5mm steel pipe passes through a double 50mm ablative batt seal within a masonry construction. Specimen A1 achieved a fire resistance rating of 220 minutes integrity and 20 minutes insulation.

The 220 minutes integrity rating achieved is a significant overrun in performance and although this test consisted of a double 50mm ablative batt seal sealed from both sides the result gives us confidence in the ability of double 50mm ablative batt seals in providing an effective seal for resistance periods above 120 minutes integrity for large non-combustible objects.



WF 406434 – Elevation



WF 406434 - Unexposed Face after test duration of 120 minutes

Specimen	Penetration	Integrity (minutes)			Insulation (minutes)
		Cotton Pad	Sustained flaming	Gap Gauge	
A	A1	229	244*	244*	20
	A2	244*	244*	244*	14
	Overall	**229**	**244***	**244***	**14**
	B1(Cluster)	199	199	244*	71

WF 406434 – Results table – A1 220 integrity 20 minutes insulation

ROCKWOOL®

TECHNICAL EVALUATION

ROCKWOOL REFERENCE:
RWEJ-20230522-03-A

CLIENT:
SPARTA SYSTEMS

PROJECT:
PATHOLOGY BUILDING

FIRE RATING REQUIRMENT:

INTEGRITY:
60 minutes

INSULATION:
N/A

SUPPORTING DATA:

WF 385718 – Double 50mm batt seal cables
WF 411458 – Trunking penetrations
WF 406434 – Large steel pipe
WF 335645-4 – Double 50mm batt FOA

ASSESSOR:

Ruth Barnes (Trainee Assessor)
Fire Technical Consultant

REVIEWER:

Lewis Ham (Senior Assessor)
Fire Protection Technical Lead

CONTACT

ROCKWOOL LIMITED
PENCOED, BRIDGEND,
CF35 6NY
01656 862261

Based on the above, and in lieu of direct supporting test data for a P1000 channel and 100x100mm SHS. It is our opinion that if these services penetrated a double 50mm ablative batt seal and were tested in accordance with BS EN 1366-3 a fire resistance rating of 60 minutes integrity would be achieved.

SIGNATORIES

Assessor:
Ruth Barnes (Trainee Assessor)
Fire Technical Consultant

Reviewer:
Lewis Ham (Senior Assessor)
Fire Protection Technical Lead

ROCKWOOL®

TECHNICAL EVALUATION

ROCKWOOL REFERENCE:
RWEJ-20230522-01

CLIENT:
SPARTA SYSTEMS

PROJECT:
PATHOLOGY BUILDING

FIRE RATING REQUIRMENT:

INTEGRITY:
60 minutes

INSULATION:
60 minutes

SUPPORTING DATA:

WF 411454 – Double 50mm batt Flex Conduit
WF 335645-4 – Batt 50mm FOA
UL-EU-01208-CPR – Batt UL

ASSESSOR:

Ruth Barnes (Trainee Assessor)
Fire Technical Consultant

REVIEWER:

Lewis Ham (Senior Assessor)
Fire Protection Technical Lead

CONTACT

ROCKWOOL LIMITED
PENCOED, BRIDGEND,
CF35 6NY
01656 862261

TECHNICAL EVALUATION REQUEST

ROCKWOOL have been formally approached to offer our opinion on the expected fire performance of a face fixed 50mm thick ablative coated batt seal fixed to a flexible wall construction with 25mm diameter continuous rigid non-combustible conduit penetrations.

The following technical evaluation has been produced following the guidance set out in the Passive Fire Protection Forum (PFPF*) Guide To Undertaking Technical Assessments of Fire Performance of Construction Products Based on Fire Test Evidence (2021)*.

This technical evaluation has been prepared and checked by ROCKWOOL product assessors with the necessary competence who follow the principals outlined in the PFPF guidelines to undertaking assessments in lieu of direct fire test data.

ROCKWOOL have adopted the processes outlined in the PFPF guide to manage the conflict of interest inherent with a manufacturers technical evaluation compared to an assessment developed by UKAS accredited third party, allowing for a clear a rigorous examination of the proposal by the approving body.

JUSTIFICATION OF PROPOSAL

(All referenced fire resistance data has been tested in accordance with BS EN 1366-3 unless otherwise stated)

The following assumptions have been made in developing the technical evaluation:

- The flexible wall construction has a proven fire resistance rating which is at least equal to the required performance of the seal.
- The conduits are continuous – i.e., not flush or projecting open ended conduits
- The seal size is equal to or less then 900mm (h) x 600mm (w)

FACE FIX BATT APPLICTIONS

Face fixing ablative coated batts to flexible wall constructions is directly supported for fire resistance periods up to 120 minutes as stated within ROCKWOOL 50mm field of application document (WF 335645-4). Face fix applications achieve higher periods of fire resistance when compared to aperture seal applications, this is because the seal is effectively increased in overall thickness due to the cavity between the two ablative batt layers.

DOUBLE BATT APERTURE SEAL DATA

In line with EN 15882-3:2009 – Extended applications of results from fire resistance tests for service installations - Part 3: Penetration seals. Test data established from double ablative batt aperture seals is relevant for face fix applications as increasing the air gap between batt layers is permitted.

ROCKWOOL®

TECHNICAL EVALUATION

ROCKWOOL REFERENCE:
RWEJ-20230522-01

CLIENT:
SPARTA SYSTEMS

PROJECT:
PATHOLOGY BUILDING

FIRE RATING REQUIRMENT:

INTEGRITY:
60 minutes

INSULATION:
60 minutes

SUPPORTING DATA:

WF 411454 – Double 50mm batt Flex Conduit
WF 335645-4 – Batt 50mm FOA
UL-EU-01208-CPR – Batt UL

ASSESSOR:

Ruth Barnes (Trainee Assessor)
Fire Technical Consultant

REVIEWER:

Lewis Ham (Senior Assessor)
Fire Protection Technical Lead

CONTACT

ROCKWOOL LIMITED
PENCOED, BRIDGEND,
CF35 6NY
01656 862261

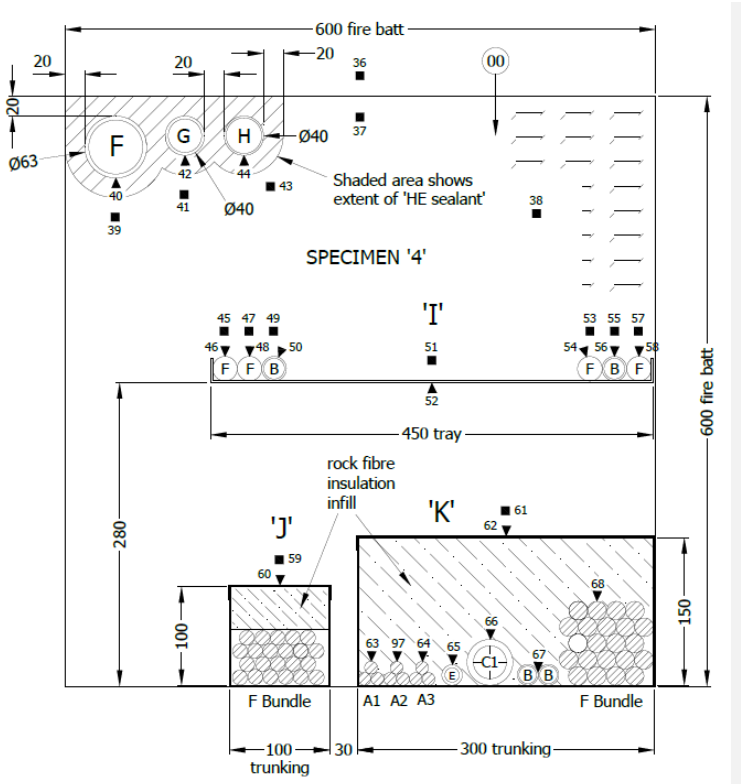
A.2.3 Boards

Variation	Rules
Change of board material	Not permitted
Increase in board thickness	Permitted (supporting evidence for framing systems/fixings must be provided)
Decrease in board thickness	Not permitted
Change in nominal board density	Not permitted
Change of coating material	Not permitted
Change in coating thickness	Not permitted
Change of perimeter / joint adhesive(s) / sealants or gap fillers	Not permitted
Change of air gap between boards	Permitted between the size of air gaps demonstrated by test
Change of internal support frames for boards	Not permitted

Extract from EN 15882-3

CONDUITS

Specimen I of WF 411454 consisted of 3 No. 25mm diameter flexible steel conduits with ablative liquid coatback (left) and 3 No. 25mm diameter flexible steel conduits without coatback (right). The three conduits were positioned in a linear formation on a perforated cable tray through a double 50mm ablative coated batt seal in a 100mm thick flexible wall construction.



WF 411454 – Specimen 4(I) – Flexible steel conduits

ROCKWOOL®

TECHNICAL EVALUATION

ROCKWOOL REFERENCE:
RWEJ-20230522-01

CLIENT:
SPARTA SYSTEMS

PROJECT:
PATHOLOGY BUILDING

FIRE RATING REQUIRMENT:

INTEGRITY:
60 minutes

INSULATION:
60 minutes

SUPPORTING DATA:

WF 411454 – Double 50mm batt Flex Conduit
WF 335645-4 – Batt 50mm FOA
UL-EU-01208-CPR – Batt UL

ASSESSOR:

Ruth Barnes (Trainee Assessor)
Fire Technical Consultant

REVIEWER:

Lewis Ham (Senior Assessor)
Fire Protection Technical Lead

CONTACT

ROCKWOOL LIMITED
PENCOED, BRIDGEND,
CF35 6NY
01656 862261

Individual temperatures recorded on the unexposed surface of Specimen 4 Service I

Time Mins	T/C Number 45 Deg. C	T/C Number 46 Deg. C	T/C Number 47 Deg. C	T/C Number 48 Deg. C	T/C Number 49 Deg. C	T/C Number 50 Deg. C	T/C Number 51 Deg. C
0	21	20	21	20	21	15	16
4	23	34	23	32	22	18	17
8	32	46	28	43	25	22	18
12	56	39	47	38	37	25	24
16	65	37	54	37	51	28	35
20	69	36	61	38	65	32	48
24	74	36	70	38	76	35	60
28	77	37	74	39	80	38	70
32	83	38	80	41	82	41	74
36	85	40	82	43	83	44	73
40	86	41	83	45	83	47	73
44	89	43	83	47	83	49	73
48	92	45	82	49	83	52	74
52	97	47	84	52	83	55	74
56	100	49	84	55	85	58	76
60	105	50	85	56	86	60	77
64	111	51	87	56	88	62	77
68	115	52	88	56	88	64	76
72	120	53	91	57	90	65	75
76	125	53	95	58	93	67	76
80	131	54	99	59	98	68	79
84	135	55	103	59	102	69	81
88	140	56	109	61	107	70	85
92	144	57	115	62	113	72	91
96	148	58	122	63	120	72	97
100	153	59	128	64	125	74	104
104	158	59	135	65	132	74	109
108	160	61	139	67	136	77	116
112	163	62	142	68	139	79	124
116	165	63	145	70	142	81	130
120	168	65	150	72	147	82	139
124	172	68	153	74	150	84	143
128	179	69	161	77	158	88	153
132	182	73	166	83	164	97	157

WF 411454 – TC 45-50 – flexible conduits with coatback
120 minutes integrity & insulation

Time Mins	T/C Number 52 Deg. C	T/C Number 53 Deg. C	T/C Number 54 Deg. C	T/C Number 55 Deg. C	T/C Number 56 Deg. C	T/C Number 57 Deg. C	T/C Number 58 Deg. C
0	16	17	18	18	18	14	14
4	18	20	78	21	28	21	58
8	23	36	86	41	58	46	100
12	35	47	75	57	94	60	78
16	43	55	76	64	94	66	77
20	51	66	82	72	95	70	80
24	54	71	89	75	123	74	88
28	60	74	95	77	139	78	95
32	66	75	104	80	150	84	104
36	71	76	113	84	159	91	113
40	78	76	120	88	164	95	120
44	82	78	128	94	170	101	129
48	87	79	135	96	176	108	135
52	91	82	143	98	185	115	144
56	94	84	149	102	190	122	150
60	97	88	154	108	196	129	156
62	98	89	156	111	198	132	158
63	99	89	157	112	200	133	159
64	99	90	158	113	201	134	161
68	102	92	162	118	206	139	165
72	103	96	167	124	211	145	171
76	106	99	172	129	216	150	177
80	109	105	179	136	222	156	184
84	112	110	181	140	223	159	187
88	115	116	186	146	228	164	192
92	118	122	191	152	234	170	196
96	121	127	195	157	238	175	201
100	124	132	199	163	241	181	205
104	125	141	205	170	247	187	210
108	139	144	212	175	253	196	215
112	133	152	220	183	261	202	222
116	137	159	227	191	268	209	228
120	144	171	240	213	280	223	238
124	143	180	247	226	287	233	245
128	155	191	258	239	298	243	257
132	157	197	268	250	306	253	277

WF 411454 – TC 53-58 – flexible conduits without coatback
****TC 56 – failure at 61 minutes****

	Overall	132	132	132	112
4	F	132*	132*	132*	132*
	G	132*	132*	132*	132*
	H	132*	132*	132*	132*
	I	132*	132*	132*	61
	J	132*	132*	132*	113
	K	105	105	132*	107
	Overall	105	105	132*	61

WF 411454 – Specimen 4 (I) 132 minutes integrity 61 minutes insulation.

ROCKWOOL®

TECHNICAL EVALUATION

ROCKWOOL REFERENCE:
RWEJ-20230522-01

CLIENT:
SPARTA SYSTEMS

PROJECT:
PATHOLOGY BUILDING

FIRE RATING REQUIRMENT:

INTEGRITY:
60 minutes

INSULATION:
60 minutes

SUPPORTING DATA:

WF 411454 – Double 50mm batt Flex Conduit
WF 335645-4 – Batt 50mm FOA
UL-EU-01208-CPR – Batt UL

ASSESSOR:

Ruth Barnes (Trainee Assessor)
Fire Technical Consultant

REVIEWER:

Lewis Ham (Senior Assessor)
Fire Protection Technical Lead

CONTACT

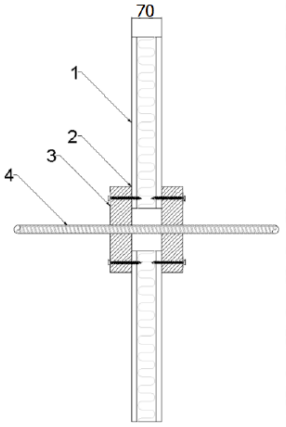
ROCKWOOL LIMITED
PENCOED, BRIDGEND,
CF35 6NY
01656 862261

The above results confirm that flexible steel conduits on a cable tray through a double 50mm ablative batt seal can achieve a fire resistance rating of 120 minutes integrity and 60 minutes insulation with no additional treatment to the conduits (TCs 53 – 58). Similarly, a result of 120 minutes integrity and insulation is achieved with an additional L/I (Locally interrupted) coat back of ablative liquid is applied on the conduit.

In further support we refer to our single skin face fix batt coverage within UL-EU-01208-CPR. Where 20mm diameter flexible conduits achive a fire resiatnce rating of EI90 through a single skin flexible wall construction. Despite the slight increase in conduit size and rigidity on this scheme from we can see below that this application can achieve fire resistance ratings of up to 90 minutes.

Single Layer Pattress FirePro Ablative Coated Batt 50mm. Electrical Cables and Conduits

Max Aperture 570mm Wide x 200mm High



Key
1. Supporting Construction
2. FirePro Acoustic Intumescent Sealant
3. FirePro Ablative Coated Batt
4. Service Penetration

Service(s)	Classification
20mm dia Adaptaflex SPL20 flexible conduit	EI 90
20mm dia Kopex KSU 316 stainless steel flexible conduit	
150mm wide x 60mm deep steel cable tray containing 4 x FP200 Gold (Firealarm cable 7mm dia red) Cables	E 90 EI 60

[1]Patress installation of FirePro Ablative Coated Batt. The Batts are installed in horizontal rows and fixed on all edges. Overlap of batts to substrate min 50mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centres

27-CP-F0855 Issue: 3.1

UL-EU-01208-CPR – Face Fix Ablative Batt

In summary, it is our opinion that if the seal detailed in this report were to undergo fire resistance testing in accordance with BS EN 1366-3:2021 a fire resistance rating of at least 60 minutes integrity and insulation would be achieved.

SIGNATORIES

Assessor:
Ruth Barnes (Trainee Assessor)
Fire Technical Consultant

Reviewer:
Lewis Ham (Senior Assessor)
Fire Protection Technical Lead

ROCKWOOL®

TECHNICAL EVALUATION

ROCKWOOL REFERENCE:
RWEJ-20230522-01

CLIENT:
SPARTA SYSTEMS

PROJECT:
PATHOLOGY BUILDING

FIRE RATING REQUIRMENT:

INTEGRITY:
60 minutes

INSULATION:
60 minutes

SUPPORTING DATA:

WF 411454 – Double 50mm batt Flex Conduit
WF 335645-4 – Batt 50mm FOA
UL-EU-01208-CPR – Batt UL

ASSESSOR:

Ruth Barnes (Trainee Assessor)
Fire Technical Consultant

REVIEWER:

Lewis Ham (Senior Assessor)
Fire Protection Technical Lead

CONTACT

ROCKWOOL LIMITED
PENCOED, BRIDGEND,
CF35 6NY
01656 862261

ROCKWOOL®

TECHNICAL EVALUATION

ROCKWOOL REFERENCE:
RWEJ-20230522-02

CLIENT:
SPARTA SYSTEMS

PROJECT:
PATHOLOGY BUILDING

FIRE RATING REQUIRMENT:

INTEGRITY:
60 minutes

INSULATION:
N/A

SUPPORTING DATA:

WF 411460 – Single skin conduits/sleeves
UL-EU-01203-CPR – AIS UL
RWSD-AIS-0101 – RW Standard Detail

ASSESSOR:

Ruth Barnes (Trainee Assessor)
Fire Technical Consultant

REVIEWER:

Lewis Ham (Senior Assessor)
Fire Protection Technical Lead

CONTACT

ROCKWOOL LIMITED
PENCOED, BRIDGEND,
CF35 6NY
01656 862261

TECHNICAL EVALUATION REQUEST

ROCKWOOL have been formally approached to offer our opinion on the expected fire performance of sealing the annular gap around a 25mm diameter continuous rigid steel conduit with an acoustic intumescent sealant annular gap seal.

The following technical evaluation has been produced following the guidance set out in the Passive Fire Protection Forum (PFPF*) Guide To Undertaking Technical Assessments of Fire Performance of Construction Products Based on Fire Test Evidence (2021)*.

This technical evaluation has been prepared and checked by ROCKWOOL product assessors with the necessary competence who follow the principals outlined in the PFPF guidelines to undertaking assessments in lieu of direct fire test data.

ROCKWOOL have adopted the processes outlined in the PFPF guide to manage the conflict of interest inherent with a manufacturers technical evaluation compared to an assessment developed by UKAS accredited third party, allowing for a clear a rigorous examination of the proposal by the approving body.

JUSTIFICATION OF PROPOSAL

(All referenced fire resistance data has been tested in accordance with BS EN 1366-3 unless otherwise stated)

The following assumptions have been made in developing the technical evaluation:

- The flexible wall construction has a proven fire resistance rating which is at least equal to the required performance of the seal.
- The conduits are continuous – i.e., not flush or projecting open ended conduits
- The annular gap seal is no greater than 10mm with a minimum depth of 12.5mm

The following report reviews the available fire resistance test data in support of an acoustic intumescent annular gap seal around a 25mm diameter continuous rigid conduit through a double skin flexible wall construction for 60 minutes integrity only.

PROJECTING CONDUITS

Projecting conduits are deemed a more onerous condition than rigid continuous conduits due to the additional seal requirements that are required between the conduit and the wall as well as the exposed ends of the conduit at each end.

Fire resistance test WF 411460 (BS EN 1366-3 2009) consisted of 42mm & 76mm diameter projecting copper conduits through a 75mm thick single skin flexible wall construction (Specimen H 42mm & Specimen G 76mm). The conduit was sealed with acoustic intumescent sealant between the sleeve and the plasterboard lining. The exposed ends of the conduit were

ROCKWOOL®

TECHNICAL EVALUATION

ROCKWOOL REFERENCE:
RWEJ-20230522-02

CLIENT:
SPARTA SYSTEMS

PROJECT:
PATHOLOGY BUILDING

FIRE RATING REQUIRMENT:

INTEGRITY:
60 minutes

INSULATION:
N/A

SUPPORTING DATA:

WF 411460 – Single skin conduits/sleeves
UL-EU-01203-CPR – AIS UL
RWSD-AIS-0101 – RW Standard Detail

ASSESSOR:

Ruth Barnes (Trainee Assessor)
Fire Technical Consultant

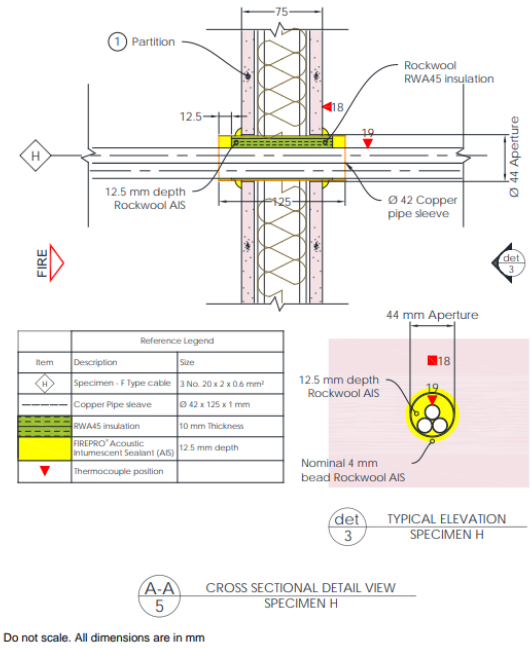
REVIEWER:

Lewis Ham (Senior Assessor)
Fire Protection Technical Lead

CONTACT

ROCKWOOL LIMITED
PENCOED, BRIDGEND,
CF35 6NY
01656 862261

also sealed with 45kg/m3 stonewool packing and 13mm depth of acoustic intumescent sealant.



Extract from WF 411460 – Specimen Section

.

Specimen / Service	Integrity (minutes)			Insulation (minutes)
	Cotton Pad	Sustained flaming	Gap Gauge	
A	60*	60*	60*	60*
B	60*	60*	60*	60*
C	60*	60*	60*	60*
D	29	29	30#	29
E	60*	60*	60*	60*
F	60*	60*	60*	60*
G	60*	60*	60*	59
H	60*	60*	60*	60*

Extract from WF 411460 – Results Table

Specimen H & Specimen G achieved an integrity rating of 60 minutes which is equal to the required rating for this scheme. This test proves the interface between acoustic intumescent sealant, a non-combustible conduit and flexible wall can meet the required performance rating.

CONTINUOUS RIGID CONDUITS

In terms of supporting evidence for continuous rigid conduits we refer to non-combustible pipe penetrations through flexible wall constructions. Classification document UL-EU-01203-CPR provides direct coverage for copper and steel pipes up to 54mm diameter with a 1.2mm wall thickness through 75mm thick single skin flexible wall construction with a fire resistance rating of E 90. The 10mm annular gap is sealed with acoustic intumescent sealant to a depth of 12.5mm which is a direct reflection of the site condition for this scheme.

ROCKWOOL®
TECHNICAL EVALUATION

ROCKWOOL REFERENCE:
RWEJ-20230522-02

CLIENT:
SPARTA SYSTEMS

PROJECT:
PATHOLOGY BUILDING

FIRE RATING REQUIRMENT:

INTEGRITY:
60 minutes

INSULATION:
N/A

SUPPORTING DATA:

WF 411460 – Single skin conduits/sleeves
UL-EU-01203-CPR – AIS UL
RWSD-AIS-0101 – RW Standard Detail

ASSESSOR:

Ruth Barnes (Trainee Assessor)
Fire Technical Consultant

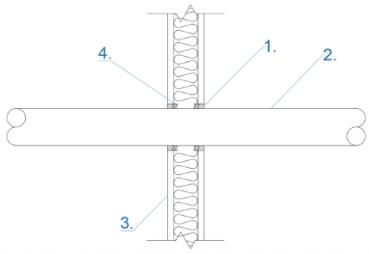
REVIEWER:

Lewis Ham (Senior Assessor)
Fire Protection Technical Lead

CONTACT

ROCKWOOL LIMITED
PENCOED, BRIDGEND,
CF35 6NY
01656 862261

Flexible or Rigid Walls ≥75mm Lined/Unlined – Insulated/Uninsulated



Key
1. FirePro Acoustic Intumescent Sealant
2. Metallic Pipe
3. Flexible Wall
4. Backing Material

Penetration Service	Depth (mm)	Annular (mm)	Backing Material	Classification
Copper pipe ≤15mm Ø, 0.7 – 14.2mm wall thickness	12	5-10	Stone wool or ceramic wool (≥10mm ≥45kg/m³)	E 90 C/U, C/C, EI 60 C/U, C/C
Copper/Steel pipe 15 – 54mm Ø, 1.2 – 14.2mm wall thickness				E 90 C/U, C/C
Steel pipe 15mm Ø, 1 – 14.2mm wall thickness				EI 90 C/U, C/C
Steel pipe 15 - 76mm Ø, 2 – 14.2mm wall thickness				E 90 C/U, C/C, EI 20 C/U, C/C
Steel pipe 325mm Ø, 17.5mm wall thickness, insulated with stone wool ≥40mm thick, ≥45kg/m³ (LI) min. 400mm length to both faces	10	25 (0 distance from aperture edge)	PE backing rod, glass wool, stone wool or ceramic wool	E 60 C/U, C/C, EI 30 C/U, C/C

UL-EU-01203-CPR – Non combustible

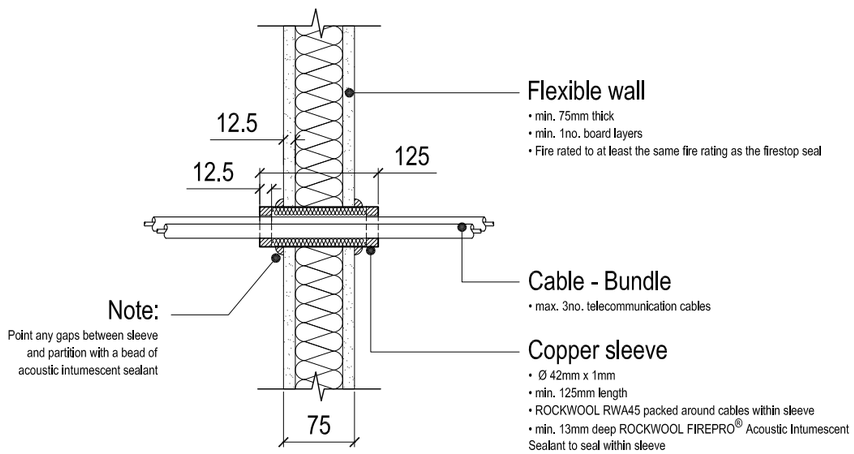
In lieu of direct fire resistance test data, it is our opinion that 25mm diameter continuous rigid steel conduits with an acoustic intumescent annular gap seal through a double skin flexible wall construction were to undergo fire resistance testing in accordance with BS EN 1366-3:2021 a fire resistance rating of at least 60 minutes integrity would be achieved.

SIGNATORIES

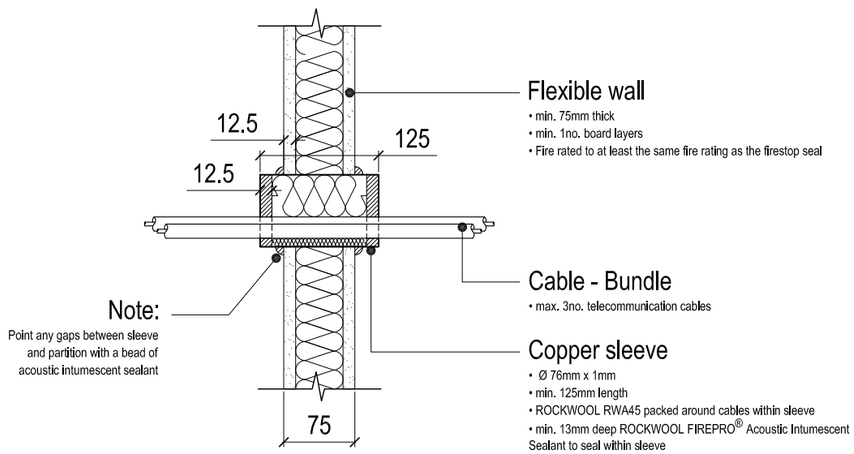
Assessor:
Ruth Barnes (Trainee Assessor)
Fire Technical Consultant

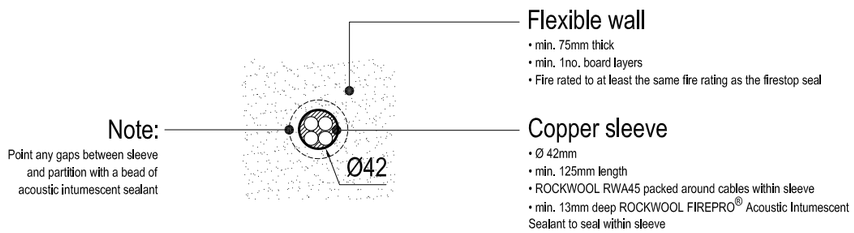
Reviewer:
Lewis Ham (Senior Assessor)
Fire Protection Technical Lead

42mm Dia. COPPER SLEEVE WITH CABLES THROUGH 75mm FLEXIBLE WALL EI 60

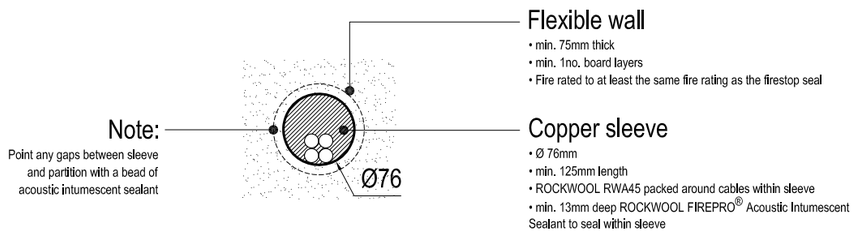


76mm Dia. COPPER SLEEVE WITH CABLES THROUGH 75mm FLEXIBLE WALL EI 60/30





ELEVATION - 42mm Dia. COPPER SLEEVE THROUGH 75mm FLEXIBLE WALL EI 60



ELEVATION - 76mm Dia. COPPER SLEEVE THROUGH 75mm FLEXIBLE WALL EI 60/30

ROCKWOOL Standard Detail:

Supporting Test Data : WF 411460 (BS EN 1366-3:2009)

The supporting construction must be capable of achieving the required fire rating of the proposed firestop.

Flexible wall constructions must be installed in accordance with the manufacturer's guidelines. The wall construction should be a minimum thickness of 75mm.

All service items should be adequately supported both sides of the firestop to ensure that no load is transferred onto the firestop seal.

Point any gaps between copper sleeve and flexible wall with a bead of ROCKWOOL Acoustic Intumescent Sealant.

Applications in flexible wall constructions can be used in masonry wall constructions.

Refer to relevant product datasheet for further installation guidelines.

These products should only be utilised for applications as outlined in the relevant ROCKWOOL product data sheet and in accordance with the relevant ROCKWOOL Fire Resistance Testing. Additionally the product must be installed in accordance with the current ROCKWOOL guidelines.

For further information please visit www.rockwool.co.uk or contact our Technical Solutions Team on 01656 868490.

Integrity Performance:	Insulation Performance:
60 minutes	up to 60 minutes

ROCKWOOL®

Pencoed, Bridgend,
South Wales CF35 6NY
t: 01656 868490
technical.solutions@rockwool.co.uk

Drawing Title:

ROCKWOOL FIREPRO® Acoustic Intumescent Sealant
75mm Flexible Wall - 1no. Board - Cu. Sleeved Cables

Scale:	Date:	
NTS	NOV 20	
Sheet Size: A3	Drawn By: S. HIRONS	Checked By: L.HAM
Drawing Number: RWSD-AIS-0101		Revision: -

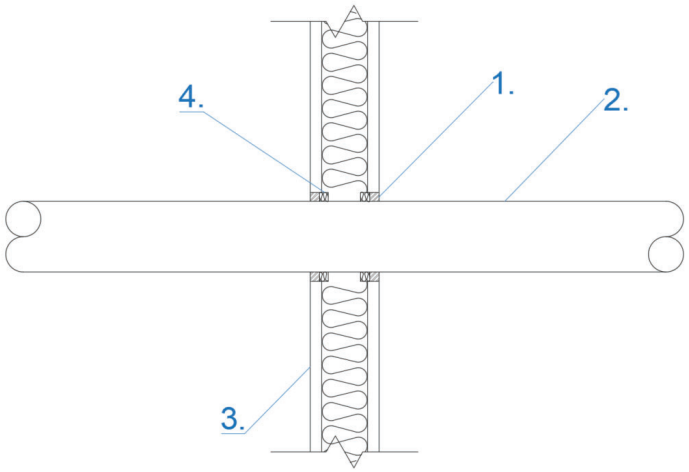
Appendix UL-EU CERTIFICATE

Penetration Seals

Flexible or Rigid Walls Minimum Thickness 75mm

Metallic pipes

Flexible or Rigid Walls ≥75mm Lined/Unlined – Insulated/Uninsulated



Key

1. FirePro Acoustic Intumescent Sealant
2. Metallic Pipe
3. Flexible Wall
4. Backing Material

Penetration Service	Depth (mm)	Annular (mm)	Backing Material	Classification
Copper pipe ≤15mm Ø, 0.7 – 14.2mm wall thickness	12	5-10	Stone wool or ceramic wool (≥10mm ≥45kg/m³)	E 90 C/U, C/C, EI 60 C/U, C/C
Copper/Steel pipe 15 – 54mm Ø, 1.2 – 14.2mm wall thickness				E 90 C/U, C/C
Steel pipe 15mm Ø, 1 – 14.2mm wall thickness				EI 90 C/U, C/C
Steel pipe 15 - 76mm Ø, 2 – 14.2mm wall thickness				E 90 C/U, C/C, EI 20 C/U, C/C
Steel pipe 325mm Ø, 17.5mm wall thickness, insulated with stone wool ≥40mm thick, ≥45kg/m³ (LI) min. 400mm length to both faces	10	25 (0 distance from aperture edge)	PE backing rod, glass wool, stone wool or ceramic wool	E 60 C/U, C/C, EI 30 C/U, C/C

Engineering Judgement

Engineering Judgement request:

An Engineering Judgement request has been made for justification of the use of ROCKWOOL acoustic intumescent sealant and ROCKWOOL FireStop compound for filling annular gaps around pie penetrations when treated with a Mulcol Multicollar Slim.

Justification of proposal:

The Assessment for Multicollar Slim C in walls and floors completed by PEUTZ laboratory for fire safety (Ref: C 1744-1E-RA-010 & C 1744-1E-RA-011) refers to annular gaps around penetrations being filled with Mulcol Multimortar or equal (Mortar EN 13501-1: class1).

ROCKWOOL high strength compound has been classified in accordance with EN 13501-1 (Ref: WF 401213) which deemed the compound has a reaction to fire of class A1 making it suitable for use according to the PEUTZ assessment. ROCKWOOL FireStop compound (normal) has been tested to BE EN 1366-3 which formed the basis of a classification report provided by EXOVA Warrington Fire in accordance with EN 13501- 2 (Ref: WF 389239). It is our opinion that ROCKWOOL standard compound would achieve a reaction to fire class A1 if this product was classified in accordance with EN 13501-1.

ROCKWOOL Acoustic Intumescent Sealant (AIS) is an acrylic based fire stopping sealant which has been extensively tested to BS EN 1366-3 and 4 as well as having a European Technical Assessment (ETA 15/0326 & 15-0327). In our view these supporting documents provide evidence that AIS is an equivalent to the Mulcol Multisealant A referenced in the PEUTZ assessment.

The above specifically relates to ROCKWOOL products being used in conjunction with the Mulcol Multicollar Slim collar as equivalent products to those referenced in the assessments. We are given further confidence in the use of ROCKWOOL products in these applications when referring to IFC PAR 12482_01 (B). Which gives details on sealing annular gaps around ROCKWOOL Pipe Collars using FireStop Compound & AIS in a similar way to those referenced in the Mulcol assessments.

In terms of providing a smoke seal, gypsum based mortar seals are deemed to be similar to concrete in terms or air tightness. Within the AIS European Technical Assessment the sealant was tested in accordance with BS EN 1314-1. The sealant was found to provide zero air leakage under negative and positive pressure at 100 Pa.

ROCKWOOL LIMITED
Pencoed, Bridgend,
South Wales CF35 6NY
T: 01656 862 261

Engineering Judgement

Rockwool Reference No:

RWEJ-20180927-02-A-RW

Client: Galaxy

Project: Mulcol Multicollar Slim

Fire Resistance Requirements

Integrity: n/a

Insulation: n/a

Supporting Data:

WF 401213 / WF 389239
ETA 15/0326 & 15/0327
IFC PAR 12482 01 (B)

Prepared by:

Lewis Ham

Fire Design Engineer

This detail has been prepared for where an application sits outside of Rockwool test data and has been assessed as the most likely solution to achieve the detailed fire rating. If however a formal Fire Rating is required then this must be obtained via a formal test/assessment from a suitably accredited UKAS Fire Laboratory.

The judgement relates to the expected Fire Resistance performance, should the detail be subjected to a test in accordance with BS 476: Part 20 (unless specified otherwise) against which this judgement has been made.

This Judgement is only suitable for the above referenced project and shall be submitted to the site design team for their approval of the details acceptability.

FIRAS Contract in hand form submitted - TX1830

URN	TX1830
Client Name	BAM Construction
Installation Address	Pathology Building LTHT Gledhow Road Harehills
Installation Town	Leeds
Installation County	West Yorkshire
Installation Postcode	LS8 5ER
Contractor Ref	206
Onsite Contact	Simon Jones
Onsite Phone	07738320885
Start Date	05/12/2022
Completion Date	16/04/2023
Other Information	We are also installing the SFS, Partitions and Ceilings on this project but only the Fire Penetration Seals fall within the Scope of our Accreditation

Value of Fire Protection Works	50000
Scope of Job	New Build
Phase	

Product Type	Manufacturer	Product	Fire Protection
Penetration Sealing	Rockwool	Acoustic Intumescent Sealant	60 minutes
Penetration Sealing	Rockwool	50mm Ablative Batt	60 minutes
Penetration Sealing	Rockwool	Firepro Collar	60 minutes
Penetration Sealing	Rockwool	HE Mastic	60 minutes
Penetration Sealing	Rockwool	Firepro Compound	60 minutes
Penetration Sealing	Mulcol	Multicollar Slim	60 minutes
Penetration Sealing	Ultra	Pipe Wrap Ultra	60 minutes
Penetration Sealing	Rockwool	H&V Pipe Insulation	60 minutes
Penetration Sealing	Rockwool	Pipe Wrap Roll	60 minutes
Penetration Sealing	Rockwool	Acoustic Intumescent Sealant	120 minutes
Penetration Sealing	Rockwool	50mm Ablative Batt	120 minutes

Submitted By	Mathew Bates
Items outside scope of work of Installation Company and exceptions	All other Sparta works are outside the scope of this Firas Accreditation, the only items within the scope are the Penetration Sealing works through Fire Rated Partitions.
Created Date	10/10/2022

Certificate No. EZ8113

This is to certify that:

SPARTA SYSTEMS

At the following address:

Unit 2, West Chevin Business Centre,
West Chevin Road, West Yorkshire, LS21 3HA

complies with the requirements of:

FIRAS CERTIFICATION SCHEME

Application of passive fire resisting products using

Penetration Sealing Systems

To check the current validity of this certificate please contact FIRAS direct or visit our website
www.firas-database.co.uk

This certification is provided to the client for its own purposes and we cannot opine on whether it will be accepted by Building Control authorities or any other third parties for any purpose

Issue No : 2
Issue Date: 29th August 2019
Original Issue Date: 31st March 2017
Valid to : 31st March 2024

Paul Duggan
EWC Certification Manager

Contact Details

Employee Name: Graham Jennings

Firas ID: T45386

Position / Job Title: Technician

Email: mbates@spartasystems.co.uk

Status: Approved

Level of Assessment: Technician

Give any other details relevant to your application
(eg. national vocational qualifications)

Moved To 'Sparta Systems' from 'GWN Contracts Limited' on 04/02/2019,

Photo

Product Groups Assessed as Competent

	Level	Date Awarded	Reassess Due
Penetration Sealing	Technician	08/07/2014	08/07/2023

FIRAS Assessment History

Date	Module	Level
08/07/2014	Penetration Sealing	Technician

Contact Details

Employee Name: Simon Jones

Firas ID: S03645

Position / Job Title: Supervisor

Email: mbates@spartasystems.co.uk

Status: Approved

Level of Assessment: Supervisor

Give any other details relevant to your application
(eg. national vocational qualifications)

Photo

Product Groups Assessed as Competent

	Level	Date Awarded	Reassess Due
Penetration Sealing	Supervisor	11/05/2017	11/05/2023

FIRAS Assessment History

Date	Module	Level
11/05/2017	Penetration Sealing	Supervisor