SPARTA SYSTEMS

FIRESTOPPING PROJECT DETAILS

Project:	LCC (Multiple Campus')
Main Contractor:	Wates / LCC Direct
Firas URN:	Various

Firestopping at Leeds City College, Direct for Leeds City College or Through Wates 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 covered through another 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)
- 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.
- 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 Mulcol Multicollar, which is supported by Rockwool in certain applications.
- Where needed, 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 and should not be sealed separately – anything specific that the client wants Sparta to install to the Dampers will need instructing to Sparta Management.

- 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.

Scope read and understood by Sparta Management:

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

SPARTA SYSTEMS

FIRESTOPPING PROJECT DETAILS

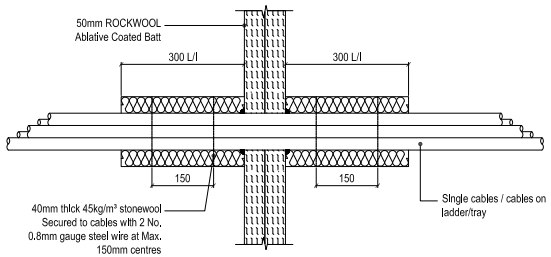
- **Vertical Details (Through Walls)**

Matrix of Solutions - Through Walls

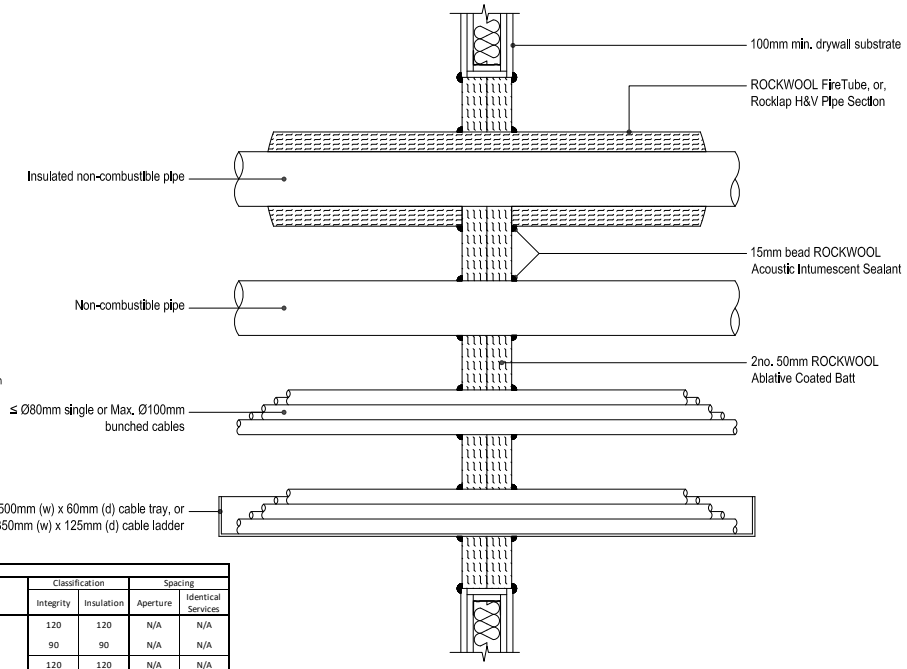
	A	B	C	D
	Dampers	**Cable Trays & Baskets**	**Plastic Pipes and Conduits**	**Non Combustible Pipes and conduits**
Non Fire Rated Walls	Seal up to Ducts that pass through NFR Walls the same as C & D	* If through Letterbox then 2 layers of 50mm Ablative Batt fitted into formed opening and acoustic mastic 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	Dampers shouldn't need fire sealing; discuss with Manager	**Through Letterbox opening:** *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).** **Where there is no Letterbox opening:** *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** **Other Options where openings cut neatly:** **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*** **Through Letterbox opening:** * 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)*** **Through Double Boarded Partitions:** * 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.*** **Insulated Pipes Through Letterbox opening (Where Insulation installed by others is Rockwool H&V section):** *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 **Insulated Pipes Through Single & Double Boarded Partitions (Where insulation installed by others is Rockwool H&V section):** *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				



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
	≤ Ø 22-50mm				120	60	0mm	0mm
	≤ Ø 51 - 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	≤ 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≤21mm	150mm Masonry Wall		40mm thick 45kg/m3 stonewool lagging (RWA45) L/l 300mm	120	120	100mm	0mm
	≤ Ø 22mm - 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	≤ Ø 100mm bundle				120	120	100mm	0mm
Unsheathed cables	≤ Ø 24mm				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,
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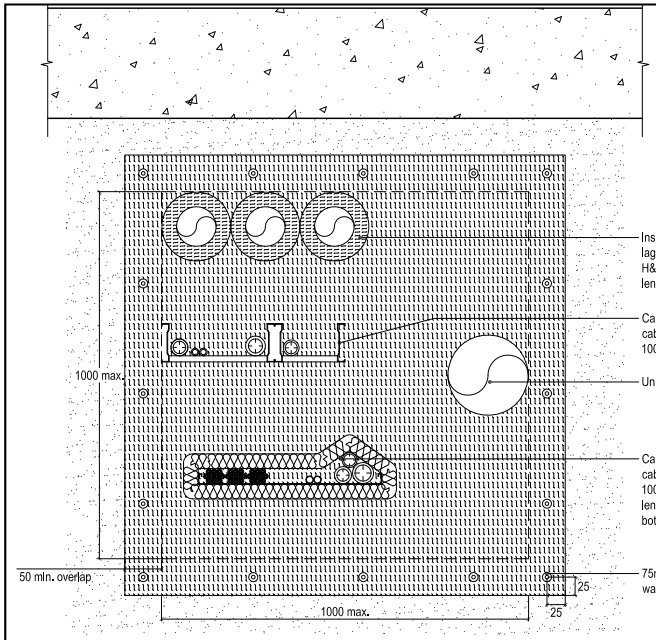
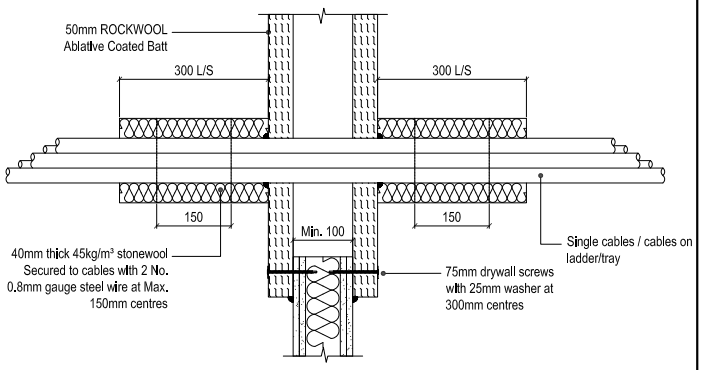
t: 01656 868490
technical.solutions@rockwool.co.uk

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

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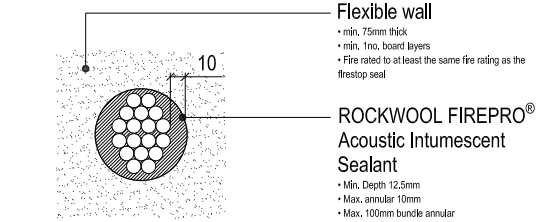
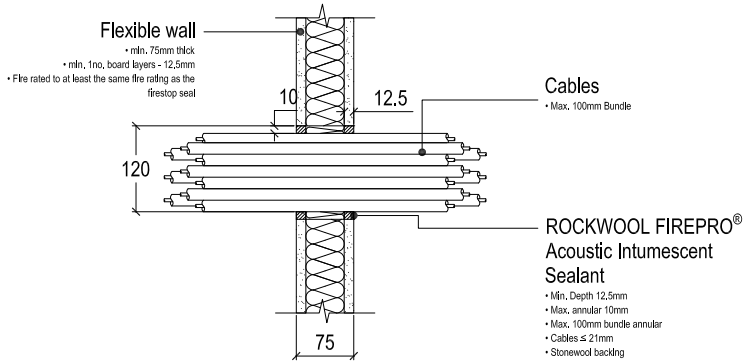
Drawing Title:
ROCKWOOL FIREPRO® 50mm Ablative Coated Batt Face Fix Application Range

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

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Pencoed, Bridgend,
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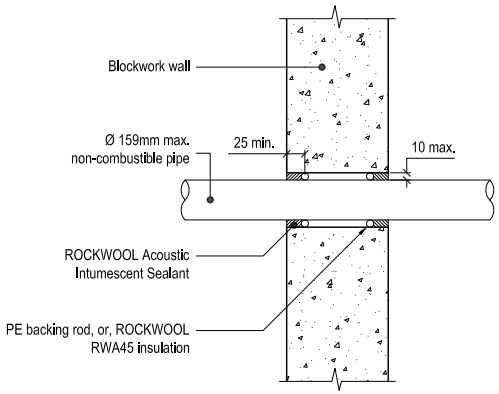
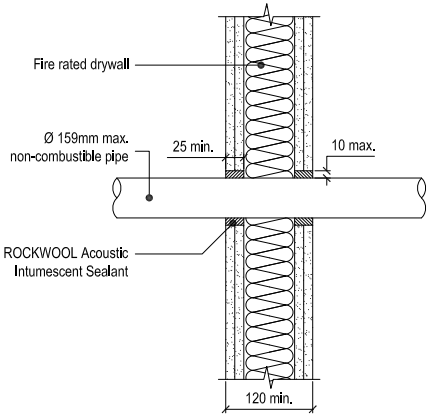
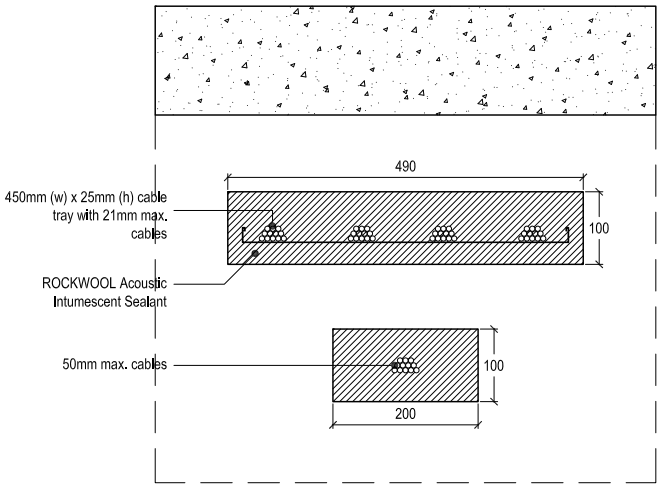
technical.solutions@rockwool.co.uk

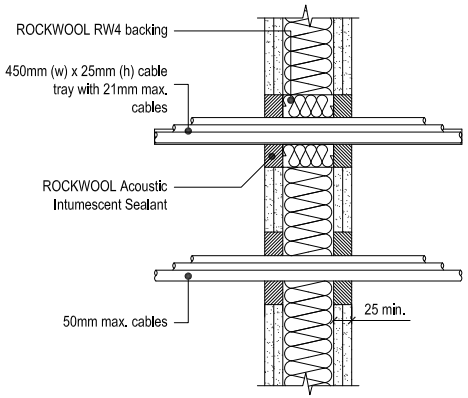
Drawing Title:
ROCKWOOL FIREPRO® Acoustic Intumescent Sealant
75mm Flexible Wall - Cable Penetrations & Blank Seal

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)

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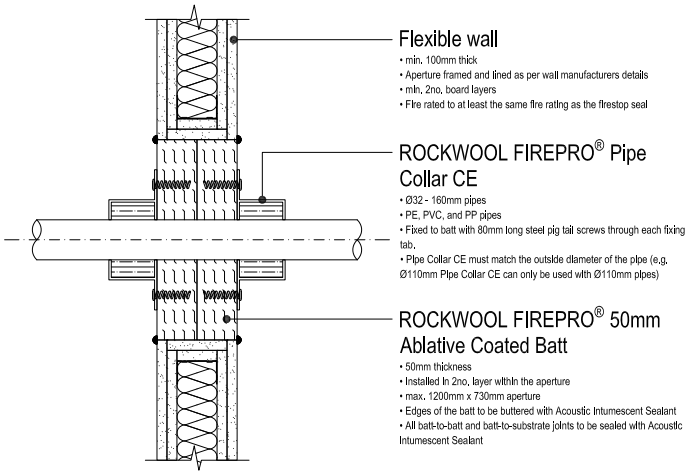
South Wales CF35 6NY
t: 01656 868490
technical.solutions@rockwool.co.uk

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 guidellnes.

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

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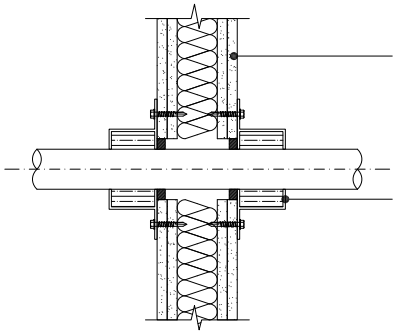
Drawing Title:
PIPE COLLAR CE
Ablative Coated Batt Wall Aperture

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

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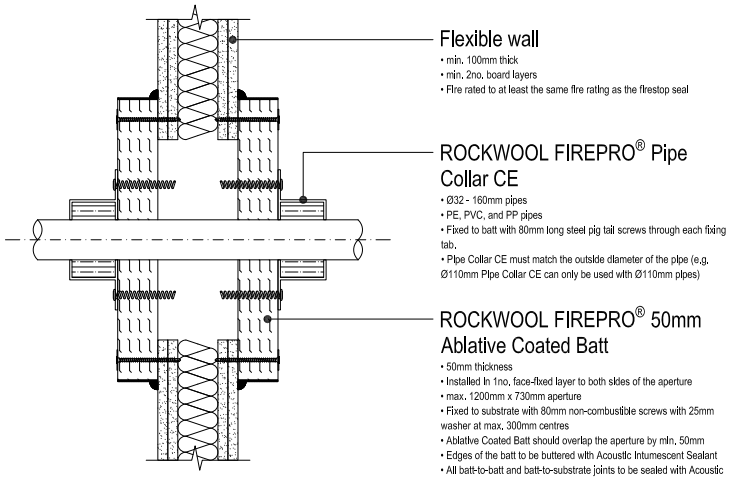
technical.solutions@rockwool.co.uk

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

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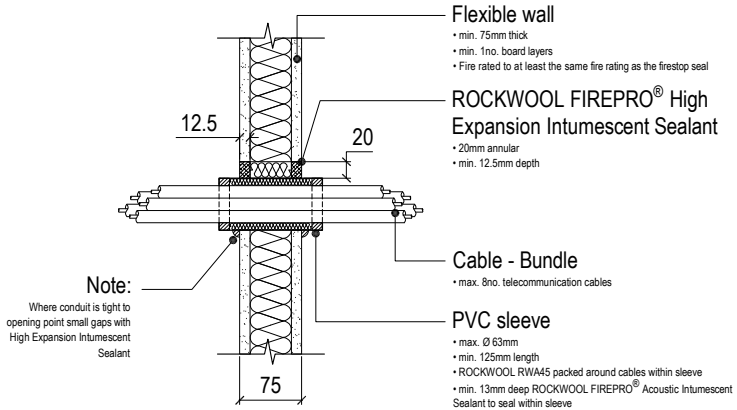
Drawing Title:
PIPE COLLAR CE
Face-fix Ablative Coated Batt

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

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



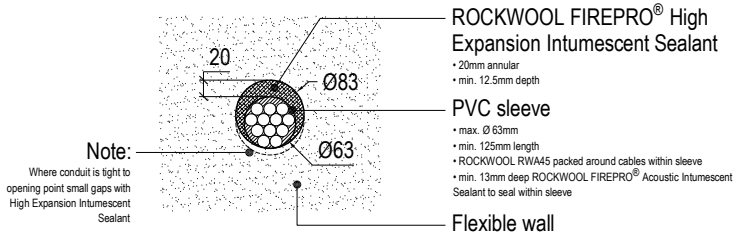
Flexible wall
- min. 75mm thick
- min. 1no. board layers
- Fire rated to at least the same fire rating as the firestop seal

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

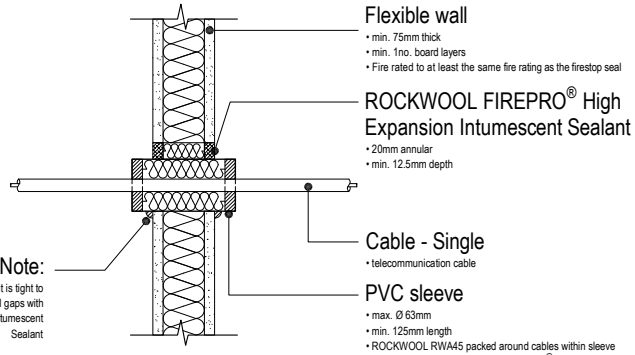
PVC sleeve
- max. Ø 63mm
- min. 125mm length
- ROCKWOOL RWA45 packed around cables within sleeve
- min. 13mm deep ROCKWOOL FIREPRO® Acoustic Intumescent Sealant to seal within sleeve

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



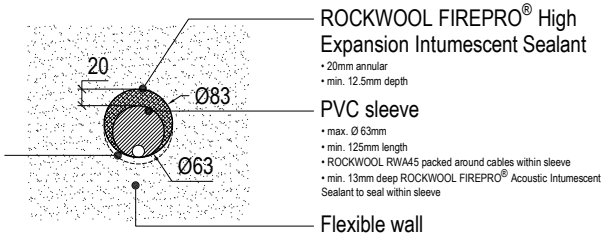
Flexible wall
- min. 75mm thick
- min. 1no. board layers
- Fire rated to at least the same fire rating as the firestop seal

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



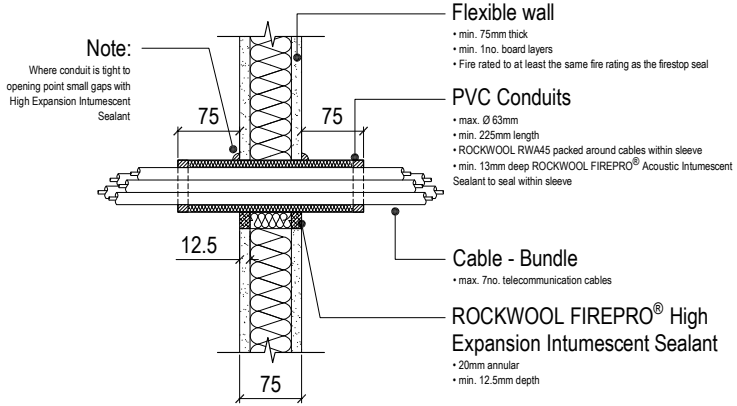
ROCKWOOL FIREPRO® High Expansion Intumescent Sealant
- 20mm annular
- min. 12.5mm depth

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

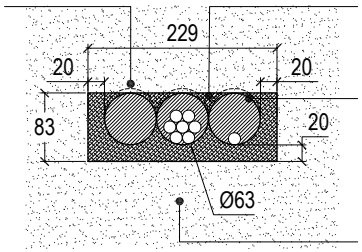
PVC Conduits
- max. Ø 63mm
- min. 225mm length
- ROCKWOOL RWA45 packed around cables within sleeve
- min. 13mm deep ROCKWOOL FIREPRO® Acoustic Intumescent Sealant to seal within sleeve

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

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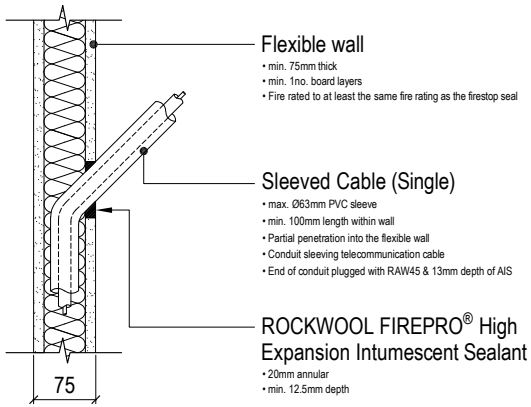
South Wales CF35 6NY
t: 01656 868490
technical.solutions@rockwool.co.uk

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: -

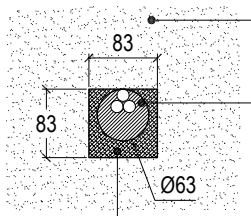
63mm Dia. PVC SLEEVE PARTIAL PENETRATION
75mm FLEXIBLE WALL
EI 90



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

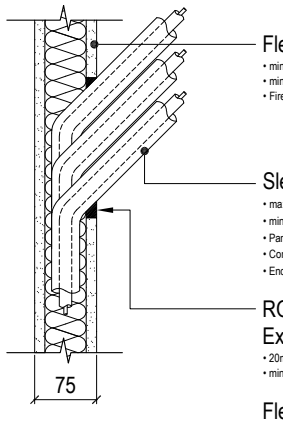
Sleeved Cable (Single)
- max. Ø63mm PVC sleeve
- min. 100mm length within wall
- Partial penetration into the flexible wall
- Conduit sleeving telecommunication cable
- End of conduit plugged with RAW45 & 13mm depth of AIS

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



ELEVATION
63mm Dia. PVC SLEEVE
PARTIAL PENETRATION
EI 90

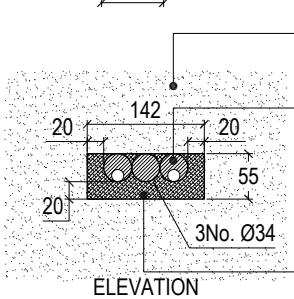
3 No. 34mm Dia. PVC SLEEVES PARTIAL PENETRATIONS
75mm FLEXIBLE WALL
EI 90/60



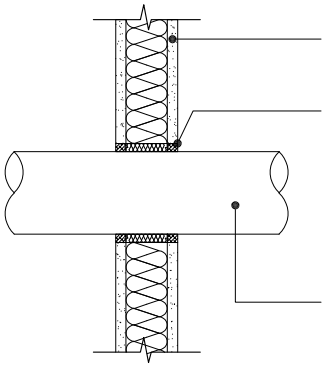
Flexible wall
- min. 75mm thick
- min. 1no. board layers
- Fire rated to at least the same fire rating as the firestop seal

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

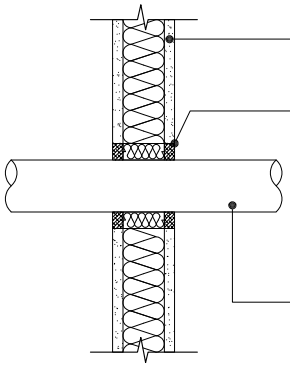


Flexible wall
- min. 75mm thick
- min. 1no. board layers
- Fire rated to at least the same fire rating as the firestop seal

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

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South Wales CF35 6NY
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technical.solutions@rockwool.co.uk

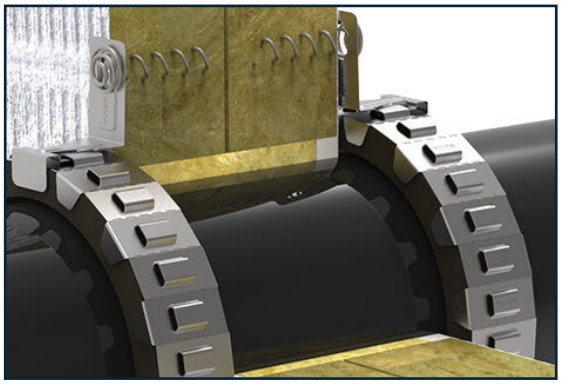
Drawing Title:
ROCKWOOL FIREPRO® High Expansion Int. Sealant
75mm Flexible Wall - 1no. Board - Pipe & Partial Pens.

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

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



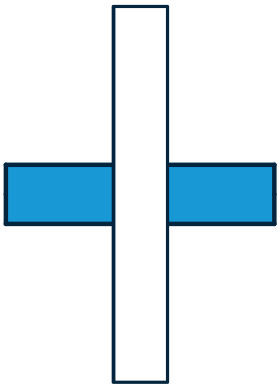
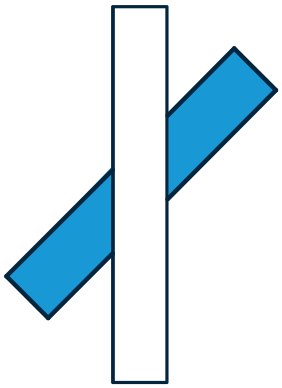
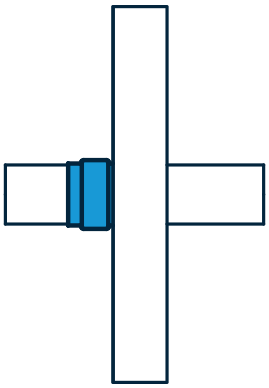
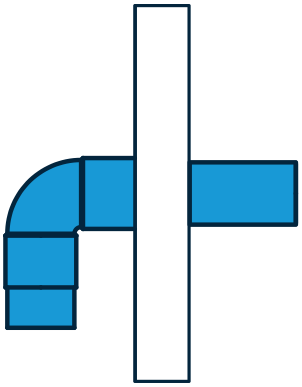
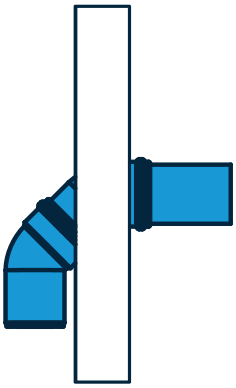
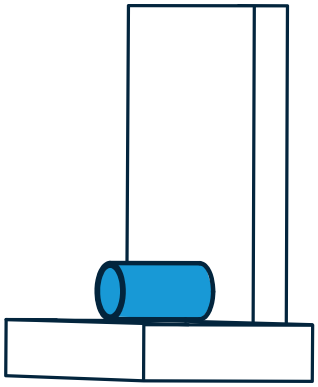
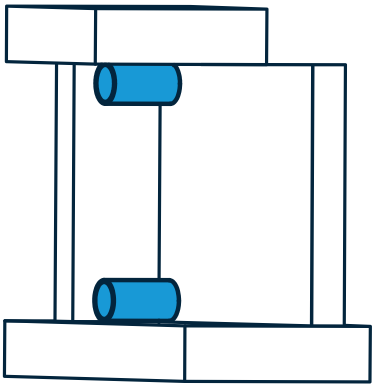
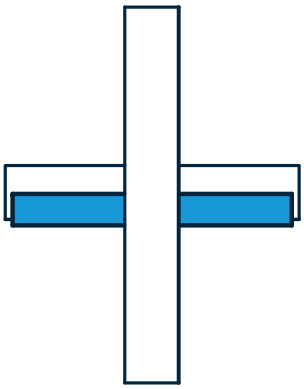
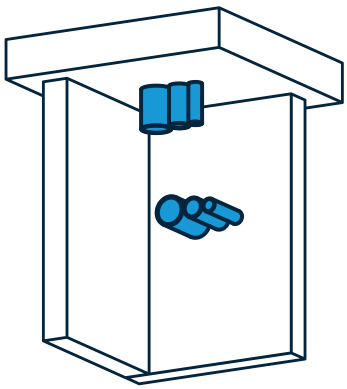
Permissible filling materials for joints around pipe penetrations
Multimastic SP, fire stopping mastic
Joint width: ≤ 20 mm
Depth: ≥ 10 mm, on both sides of the wall

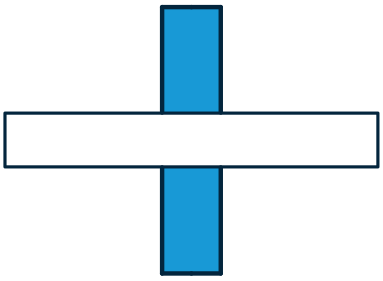
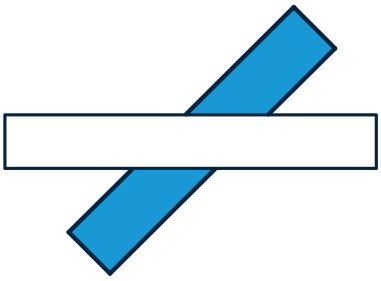
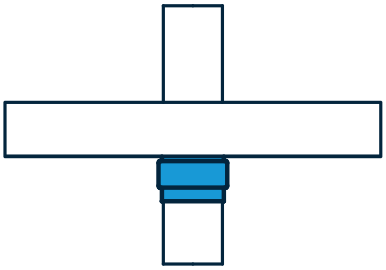
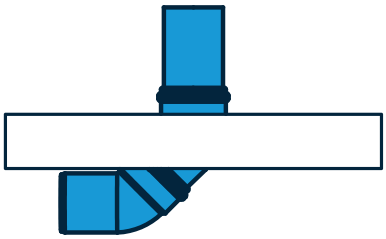
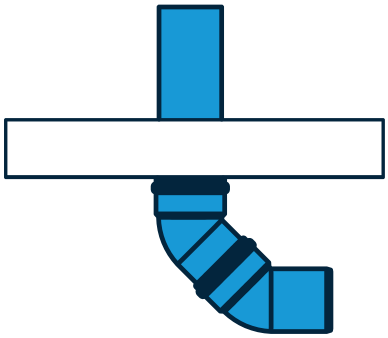
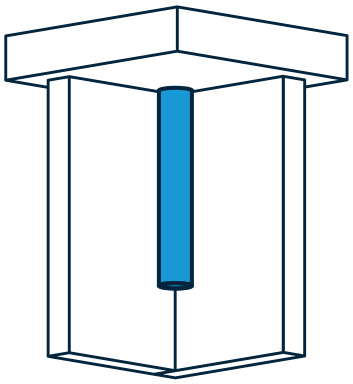
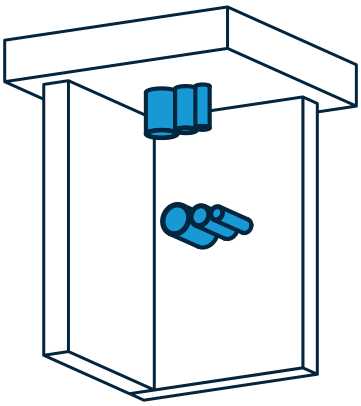
4. Tested Configurations

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*

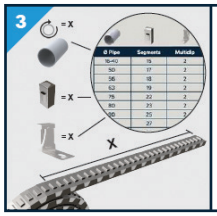
1

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

2

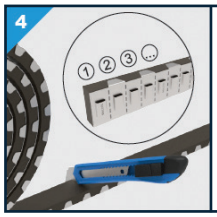
Openings ≤ 20 mm [1] can be sealed with Multisealent A firestop acrylic sealant or Multimastic SP firestop mastic, over a depth of 10 mm.

3



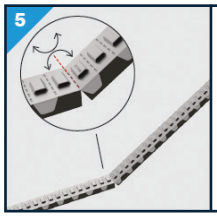
Measure the diameter of the service penetration. See the application table on the packaging (for plastic pipes 2) for the lenght of Multicollar *Slim* (number of segments) and the multiclips required.

4



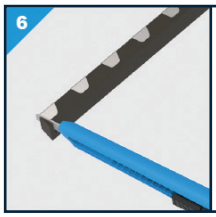
Count the number of Multicollar *Slim* segments required on the roll and then cut through the inlay with a knife.

5



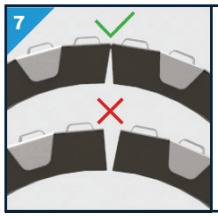
Break the Multicollar *Slim* where it has been cut.

6



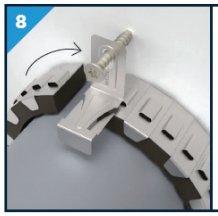
Cut the inlay away with the knife on both sides of the custom-size fire collar.

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

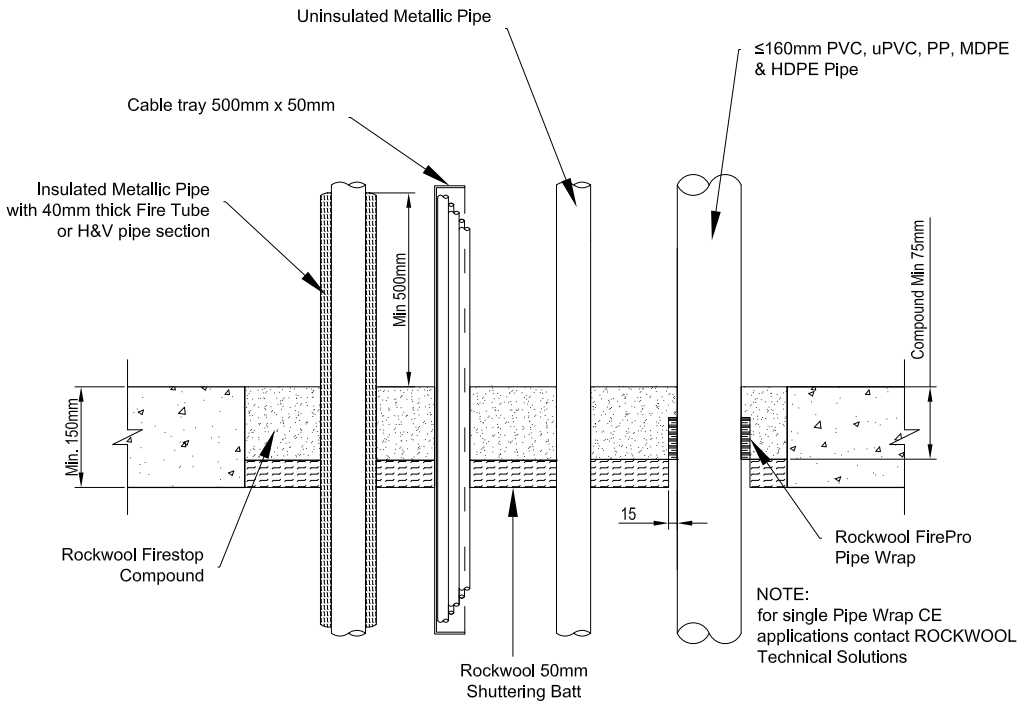
3) Mix and pour compound until the required thickness is achieved.

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

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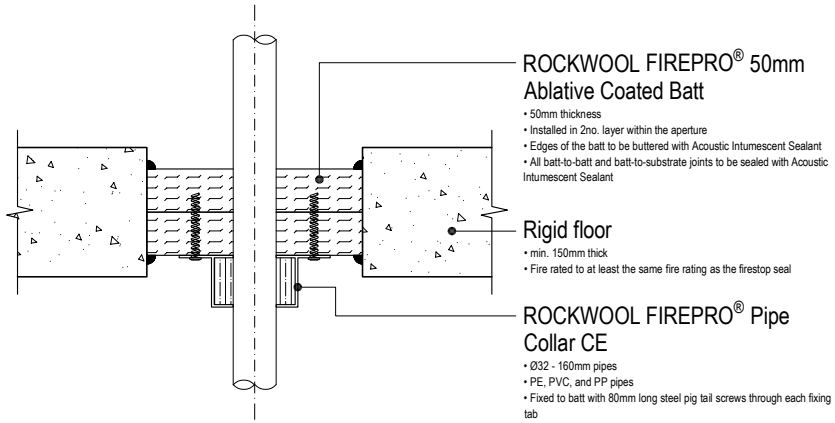
South Wales CF35 6NY
t: 01656 868490
technical.solutions@rockwool.co.uk

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

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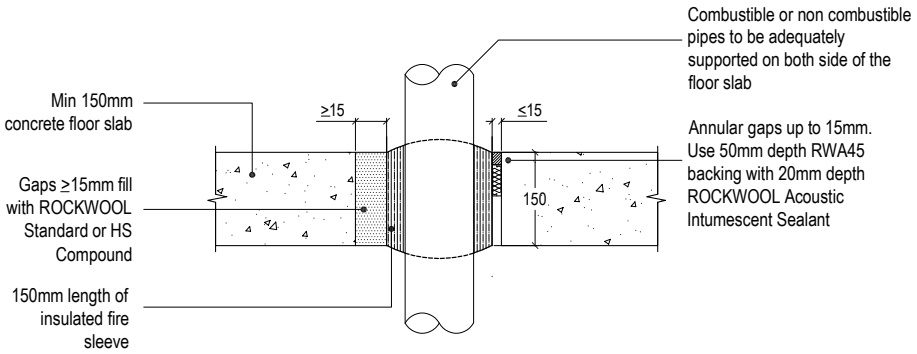
Drawing Title:
PIPE COLLAR CE
Ablative Coated Batt Floor Aperture

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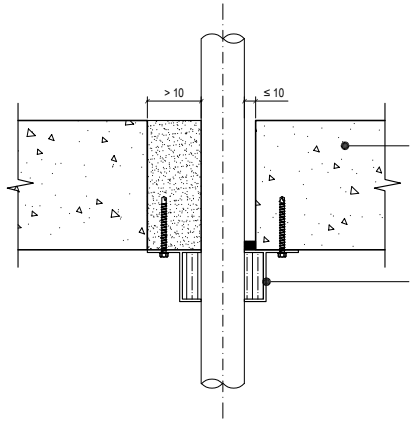
Drawing Title:
FirePro Insulated Fire Sleeve:
Penetration Seal through Floor

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



Service type		Rigid floor (min. 150mm 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)	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®

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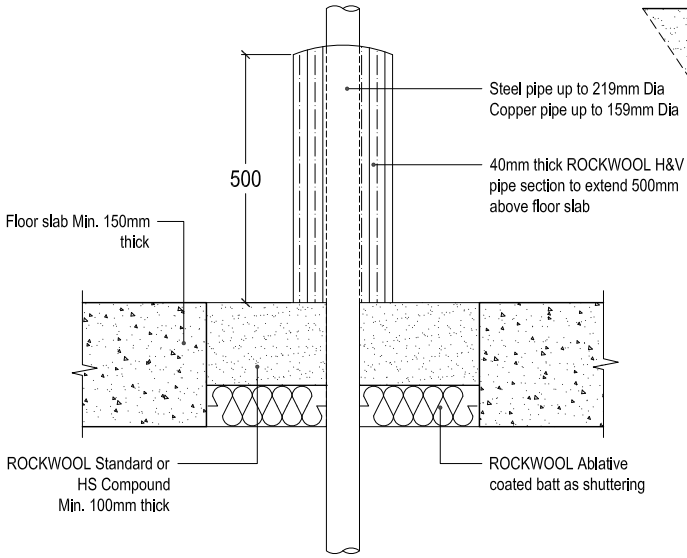
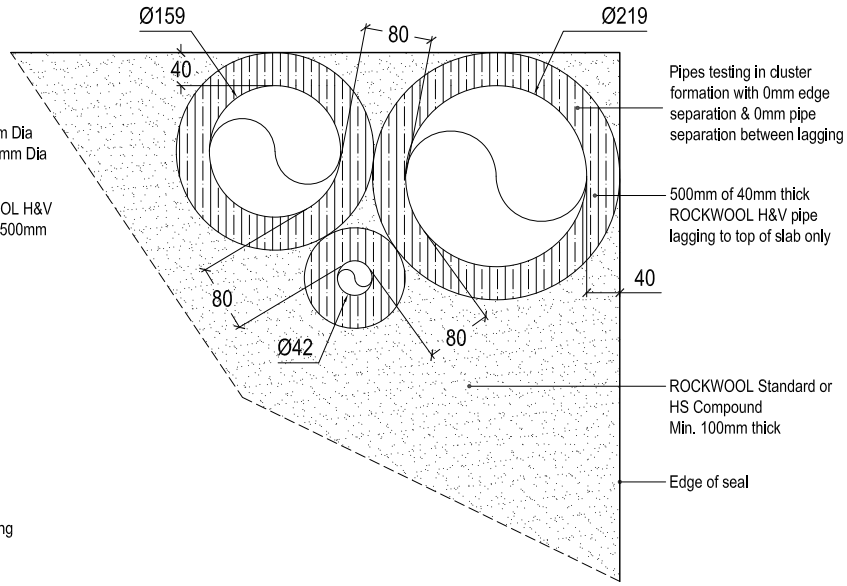
Drawing Title:
PIPE COLLAR CE
Solid Floor

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

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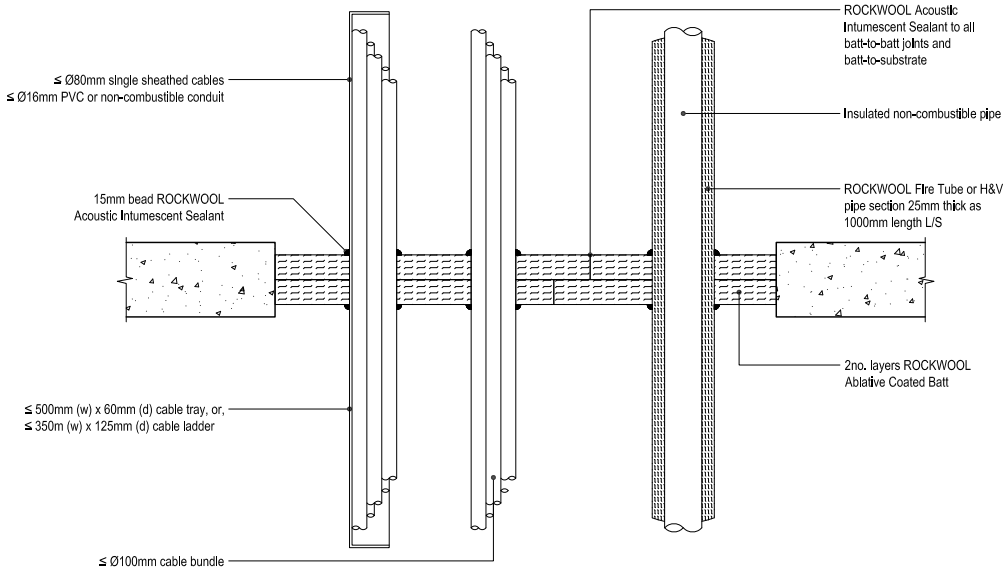
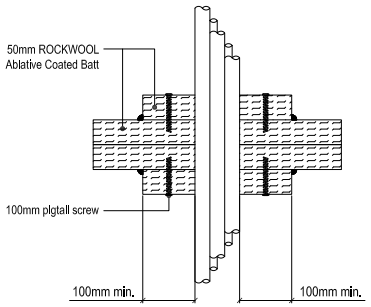
Drawing Title:
ROCKWOOL Standard Compound
H&V Pipe Section to top of slab

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

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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		-	

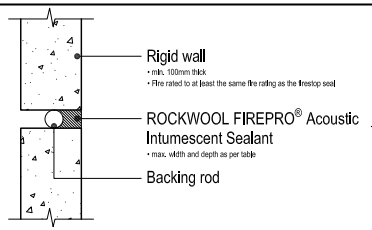
SPARTA SYSTEMS

FIRESTOPPING PROJECT DETAILS

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

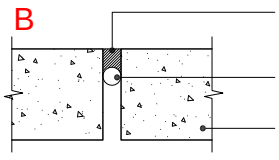
Firestopping Matrix - Linear Seals			
	0mm - 25mm	**25mm - 50mm**	**51mm to 150mm**
Non Fire Rated Plasterboard Partitions	** Install 15mm bead of Intumescent Acoustic Mastic*	** Push fit rockwool insulation into the gap (tight fit) leaving 15mm to face of the wall then install a 15mm deep bead of Rockwool 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



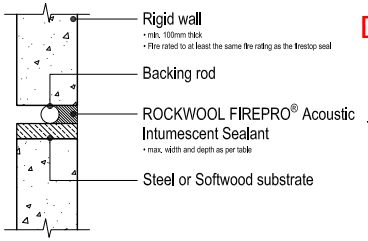
HORIZONTAL SEAL
ACOUSTIC INTUMESCENT SEALANT BETWEEN CONCRETE SUBSTRATES

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

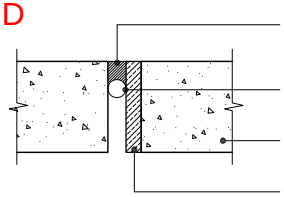
Substrate	min. Substrate thickness (mm)	max. width (mm)	min. Depth (mm)	Backing material	Single sided seal	Performance (mins) Integrity	Performance (mins) Insulation	Standard
Concrete floor / concrete floor	150	20	10	Ø 20mm PE rod	✓	240	45	EN
		50	25	Ø 50mm PE rod	✓	240	90	EN

C



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

D



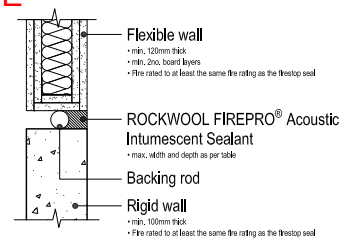
HORIZONTAL SEAL
ACOUSTIC INTUMESCENT SEALANT BETWEEN CONCRETE AND STEEL SUBSTRATES

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

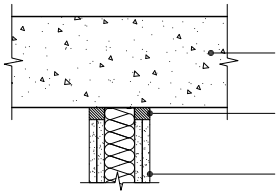
Substrate	min. Substrate thickness (mm)	max. width (mm)	min. Depth (mm)	Backing material	Single sided seal	Performance (mins) Integrity	Performance (mins) Insulation	Standard
Concrete floor / steel	150	20	10	Ø 20mm PE rod	✓	120	20	EN
		50	50	Ø 50mm PE rod	✓	240	90	EN

E



VERTICAL SEAL
ACOUSTIC INTUMESCENT SEALANT BETWEEN CONCRETE AND PLASTERBOARD SUBSTRATES

F



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

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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.

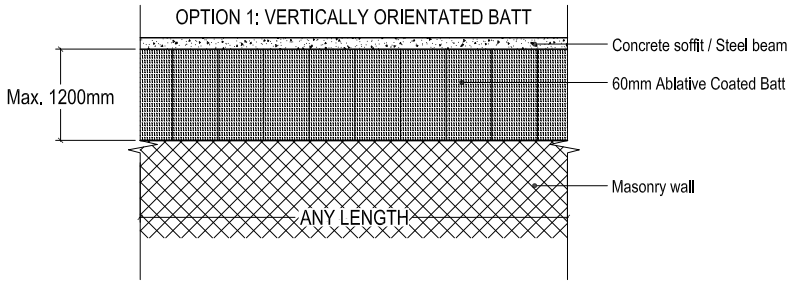
4. Continue installation until the aperture is completely filled.

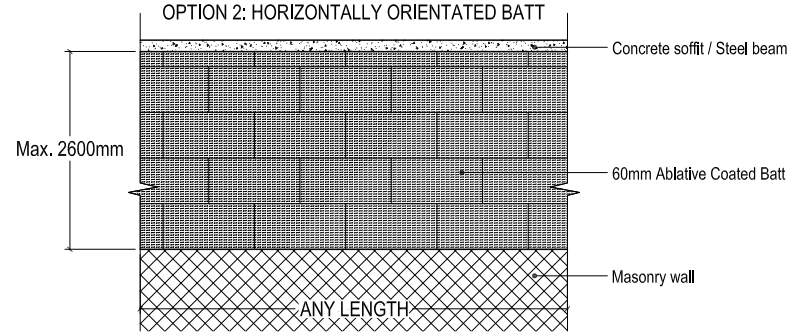
5. Apply a bead of Rockwool acoustic intumescent sealant, approximately 15 mm wide, around the perimeter of the batt ensuring that all gaps between the batt and surrounding edges are fully filled.

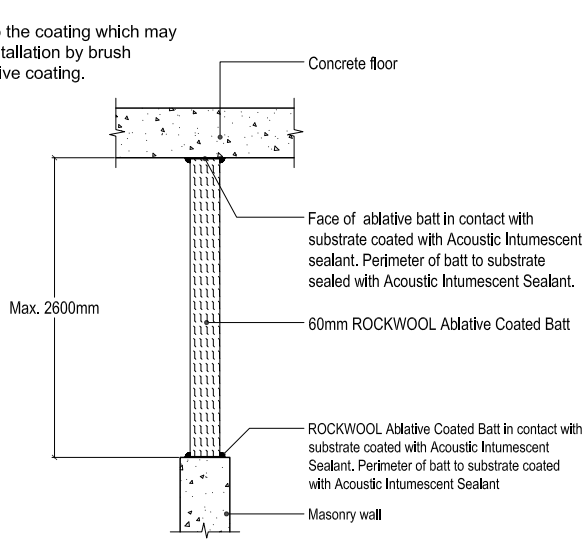
6. Repeat step 5 on the other side of the batt

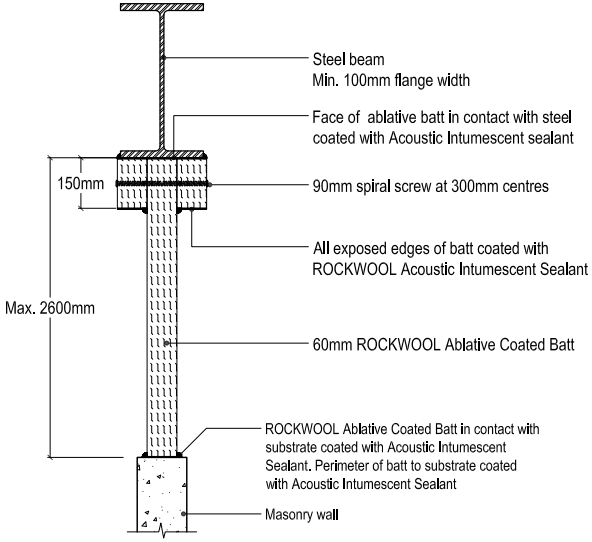
7. If sealing to the underside of a steel beam install an additional 150mm pattress with 90mm long pigtail screws at 300mm centres to both batt faces along the length of the seal. Ensuring that all exposed edges of the batt are coated with acoustic Intumescent sealant.

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

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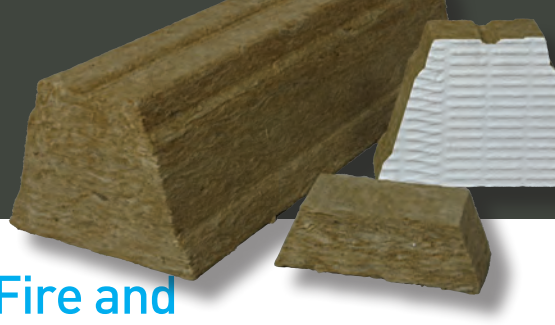
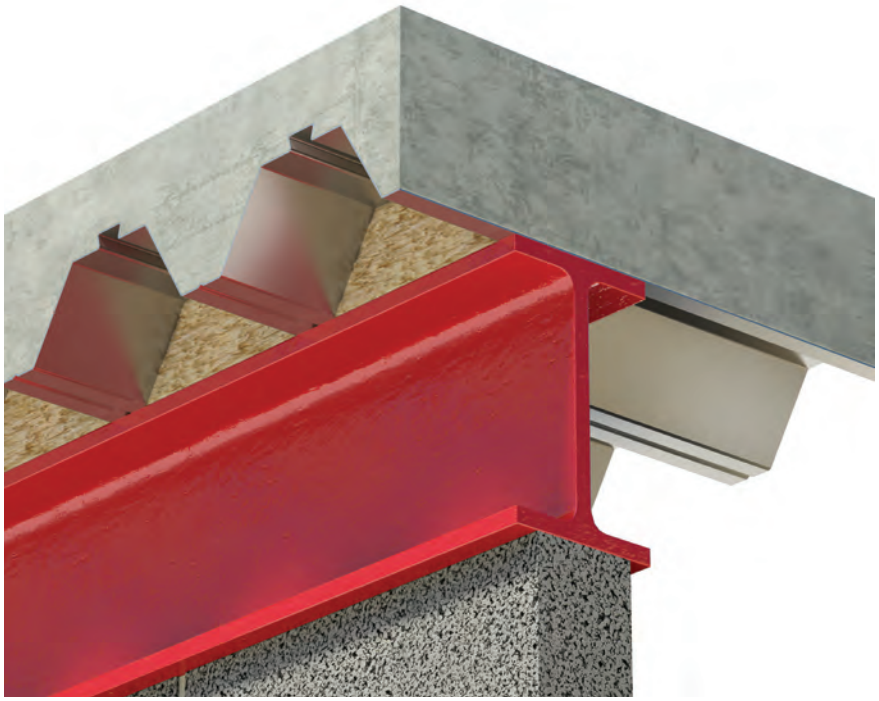
Drawing Title:
60mm Ablative Coated Batt:
Single Layer Head of Wall

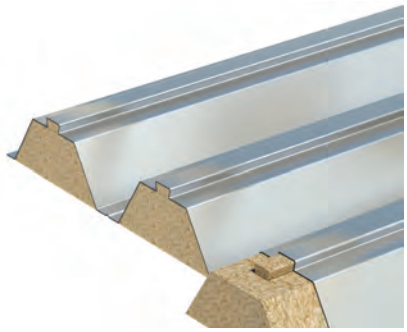
Scale:	Date:	
NTS	OCT 22	
Sheet Size: A3	Drawn By: S.HIRONS	Checked By: L.HAM
Drawing Number: RWSD-ACB-1301		Revision: -

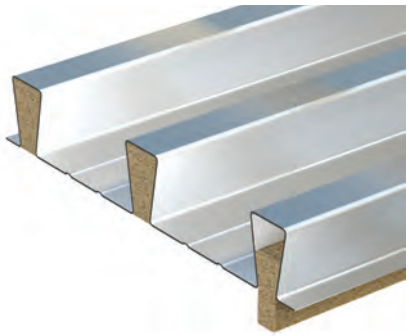
AIM Fire Stop Blocks



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.

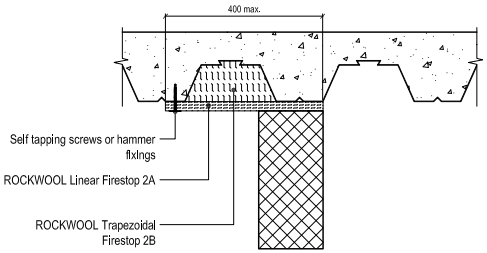
2. Linear Firestop 2A must be fitted as rectangular pieces, tightly butt jointed and compressed by at least 5% thickness.

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.

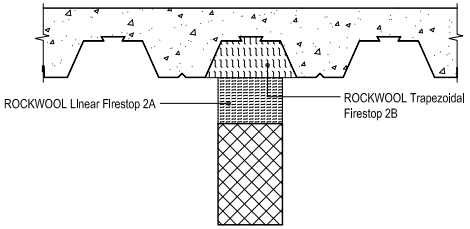
3. Small (nom 10mm) holes should be filled with Rockwool Acoustic Intumescent Sealant.

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

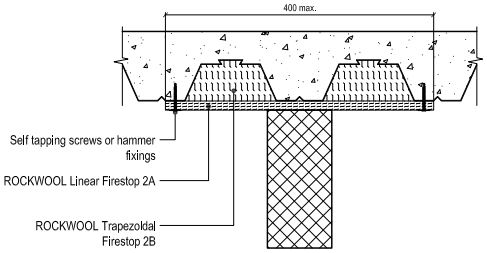
5. Dovetail Infill Firestop Strip shall are supplied as narrow rectangular strips for a pinched installation into the nominated dovetail shaped deck. The Firestop shall be installed with vertical laminations.



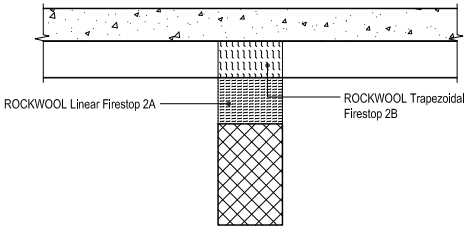
SINGLE DECK PROFILE RUNNING IN LINE, BUT ASYMMETRICAL, WITH THE WALL LINE



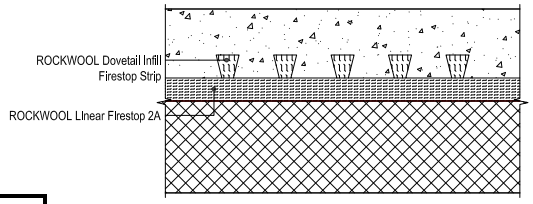
DECK PROFILE RUNNING IN LINE WITH THE WALL



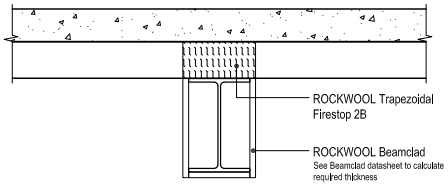
TWO DECK PROFILES RUNNING IN LINE, BUT ASYMMETRICAL, WITH THE WALL LINE



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

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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**

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.

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