Raised Access Floor Barrier

for voids beneath raised access floors

AIM ACOUSTIC AND INSULATION MANUFACTURING

Installation Guidelines | Issue 3 - 05 2025

PRODUCT

AIM Raised Access Floor Barrier prevents the passage of flame and smoke through the under floor cavity, for at least the period of fire rating specified. AIM Raised Access Floor Barrier is made from high density Rockwool stone wool slab, faced with Class 0 impervious foil facing on both sides. It is available cut to size or in slabs suitable for cutting on site.

PHYSICAL INFORMATION

- Length: 1000mm
- Widths: 75mm, 100mm & 125mm (depending on the fire rating required)
- Voids: 50 - 400mm (barrier to be compressed by 5%)
- Available cut to size and supplied with the required fixing clips
- Available in slab form for cutting on site as required
- Foil faced (see options)
- Also available Polythene sleeved
- Thermal Conductivity λ = 0.036W/mK

STORAGE

Products are supplied on wooden pallets with edge protection and a shower proof hood.

Products should be stored away from the elements until ready for installation.

HEALTH & SAFETY

Insulation products supplied by AIM are considered to be inert articles and as such are exempt from requirements to provide a Safety Data Sheet.

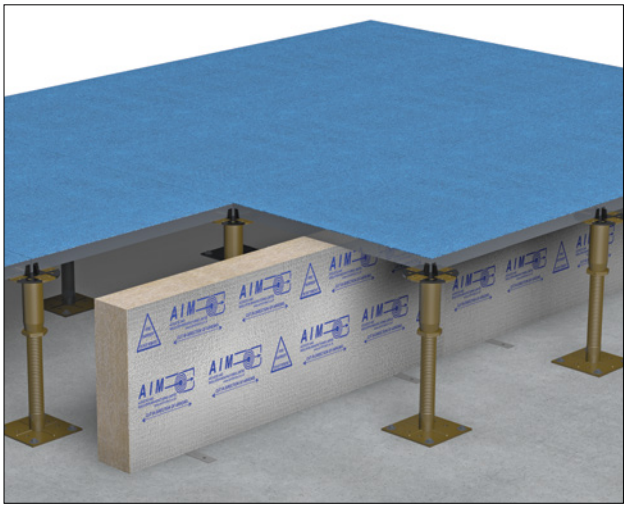
A Product Safety and Handling Information Sheet is available upon request.

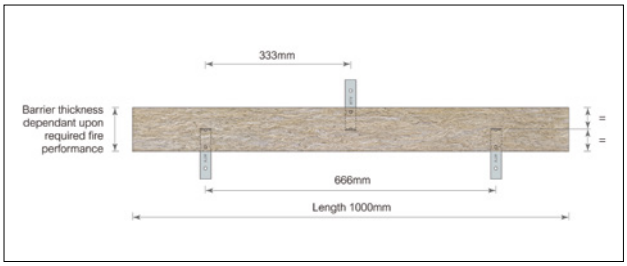
COMPONENTS available from AIM

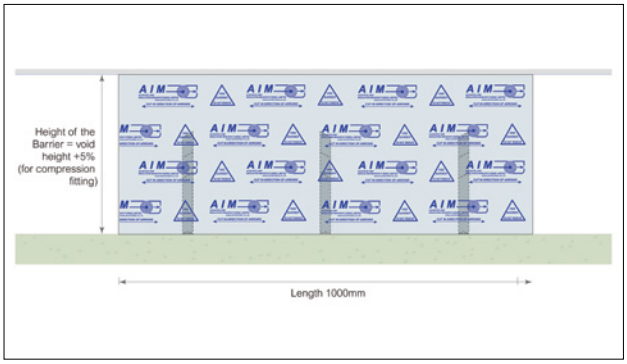
- Barrier
- Rockwool Ablative Batt
- Fixing Clip
- Acrylic fire rated intumescent mastic (optional extra)
- Rockwool Mastic
- Foil tape for sealing joints (optional extra)

ITEMS REQUIRED FOR INSTALLATION

- PPE abrasion resistant gloves
- PPE impact resistant goggles
- RPE dust mask
- Insulation saw
- Drill
- Screwdriver
- Tape measure

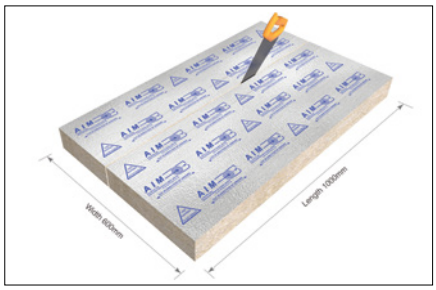






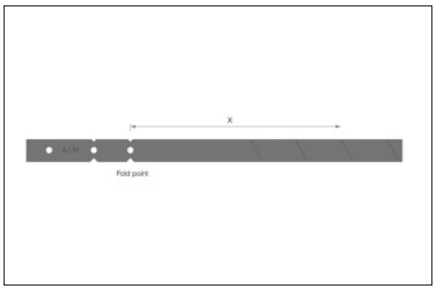
Contact the AIM Technical Sales team: 01293 582400

INSTALLATION GUIDELINES



1 Measure the void depth and add 5%. Mark the slab and carefully cut using an insulation saw or hand saw. Please cut in the direction of the arrows printed on the foil facing.

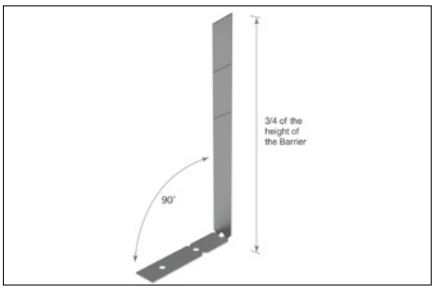
Please note: This step is not required if the barrier supplied has been pre-cut to the identified void size.



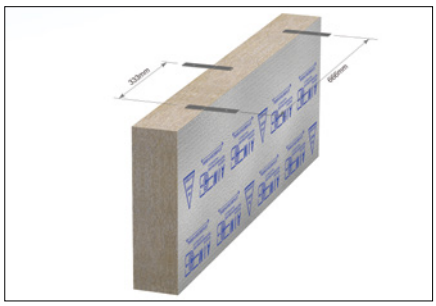
2 The product is installed with three 'L' clips per length of barrier.

Snap the fixing clips to the correct length.

Dimension 'X' should be three quarters of the barriers height.

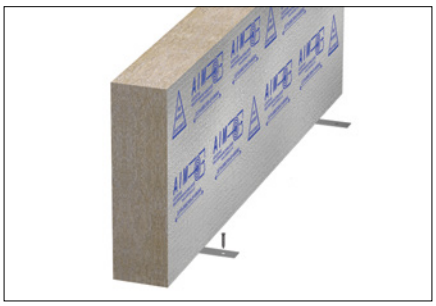


3 For all voids three 'L' angle brackets are supplied per length. Form the three fixing clips to 90° to form an 'L' shape.



4 Insert into the base of the barrier to approximately ¾ depth with the two end brackets having their 'leg' to one side of the barrier and the middle one with its leg to the other side.

The clips should be at 333mm nominal centres.

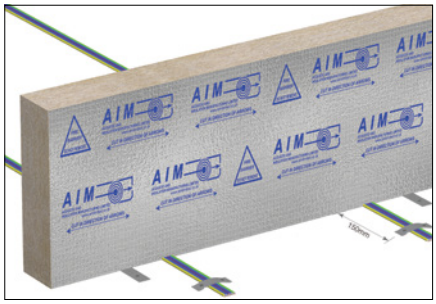


5 Place the barrier into position ensuring a tight butt joint between sections.

Secure the three fixings to the substrate using non-combustible fixings.

6 The Barrier should maintain contact with the underside of the access floor and the top of the structural floor so that no gaps are present, as this may risk loss of integrity. The barrier should be installed so that it completely fills the cavity without any gaps or voids.

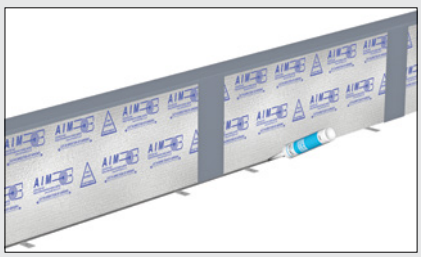
Fit the access floor tile ensuring that the barrier is held under compression. Minor imperfections or any gaps caused by joints or coffers in the floor should be sealed with a fire rated intumescent mastic.



7 If cables pass the cavity barrier line then these should be secured 150mm away from each edge of the barrier.

The system allows for up to five CAT5e or five 2.5mm three core PVC cable to be secured to the substrate and run below the Raised Access Floor Fire Barrier. Please contact AIM for specific installation guidance.

8 Prior to installing the Raised Access Floor Barrier, ensure there is intumescent mastic all around the cables. Once the slab is fitted, check for gaps and add more mastic if required.



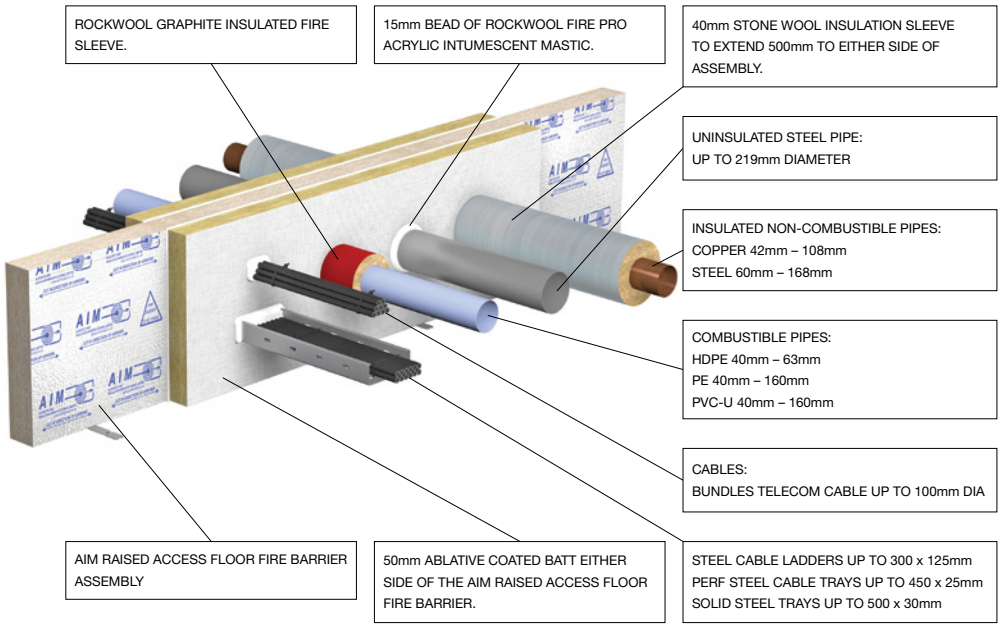
PLENUM APPLICATIONS

For Plenum applications we can supply the AIM Raised Access Floor Barrier fully foil enclosed. The barrier should then be installed on a bed of mastic with all vertical joints sealed with foil tape to ensure airtightness.

PENETRATIONS

When a penetration service is required to pass through the AIM RAF fire barrier, two 50mm Rockwool FirePro® Coated Batts, having the same height as the AIM RAF fire barrier, are placed on either side of the AIM RAF fire barrier and any small gaps around the penetrating component are filled with Rockwool FirePro® Acoustic Sealant. The horizontal distance from any part of the periphery of the penetrating service to the nearest edge of the Rockwool FirePro® Coated Batt should be at least 200mm.

Rockwool has a comprehensive range of test evidence for penetrations of cables and pipes, both with a double layer of Rockwool Ablative Coated Batt or with a double layer of Rockwool FirePro® Ablative Coated Batt. The cables tests are based on the Standard configuration for cable penetration systems, Figure A.1 in BS EN 1366-3: 2009 and the plastic pipes are based on Option 1 and the metal pipes on Option 2 in Figure E.1 in BS EN 1366-3: 2009.



NOTES

- The supporting construction must be capable of achieving the required fire performance of the proposed firestop.
- All penetrations through the assembly must be fully supported on both sides bearing the weight of the services; the assembly is not loadbearing.
- Intumescent mastic / wraps / collars / sleeves etc must be applied to both sides of the assembly.
- Penetrations must be at least 200mm from the ends of the Ablative Coated Batt / Raised Access Floor Fire Barrier assembly.
- Penetrations should be spaced at least 50mm from the upper and lower surface of the assembly.

CABLE SERVICES

Penetrating service (mm)	Integrity (minutes)	Insulation (minutes)	Number of conductors x cross sectional area
A1 ten cables 5x1.5	120	120	5 x 1.5mm²
A2 ten cables 5x1.5	120	60	5 x 1.5mm²
A3 ten cables 5x1.5	120	90	5 x 1.5mm²
B two cables 1x95	120	60	1 x 95mm²
C1 cable 4x95	120	60	4 x 95mm²
C2 cable 4x95	120	90	4 x 95mm²
C3 cable 4x95	120	60	4 x 95mm²
D1 cable 4x185	120	60	4 x 185mm²
D2 cable 4x185	120	90	4 x 185mm²
D3 cable 4x185	120	60	4 x 185mm²
E two cables 1x185	120	45	1 x 185mm²
F bundle of telecom cables Ø100	120	120	
G1 cable	120	45	1x 95mm²
G2 cable	120	60	1 x 185mm²
H three copper conduits 16dia x 0.5w	120	30	
I three PVC conduits 16dia x 1.0w	120	120	
Steel cable ladder 200 x 125 x 1.5	120	120	
Steel cable ladder 300 x 125 x 1.5	120	60	
Perforated steel cable tray 450 x 25 x 1.0	120	90	
Steel cable tray 500 x 30 x 1.5	120	120	

Table 12a. Approved Scope for Cable Services through AIM RAF Fire Barriers

The cables have been tested together meeting the requirements of Table A.1 so all intermediate sized cables are approved.

PIPE SERVICES

Penetrating service (mm)	Pipe insulation thickness (mm)	Integrity (minutes)	Insulation (minutes)
Insulated copper pipe 42dia x 1w	40	120	120
Insulated copper pipe 54dia x 1.5w	40	120	120
Insulated copper pipe 108dia x 1.2w	40	120	120
Insulated copper pipe 108dia x 1.5w	40	120	90

Table 12b. Approved Scope for Copper Pipe Services through AIM RAF Fire Barriers

The insulation used in these tests is Rockwool Fire Tube pipe insulation with a density of 140kg/m^3 or Rocklap H&V pipe section with a density of 120kg/m^3 so both these types are approved. The pipes have been tested in an Option 2 configuration (section Figure E.1 BS EN 1366-3: 2009) with three pipes touching and also very close to the edge of the batt so there are no spacing restrictions for adjacent pipes.

Penetrating service (mm)	Pipe insulation thickness (mm)	Integrity (minutes)	Insulation (minutes)
Insulated steel pipe 60dia x 2.3w	40	120	120
Insulated steel pipe 152dia x 3w	40	120	120
Insulated steel pipe 168.3dia x 5w	40	120	120
Uninsulated steel pipe 219.1dia x 5w	-	120	15

Table 12c. Approved Scope for Steel Pipe Services through AIM RAF Fire Barriers

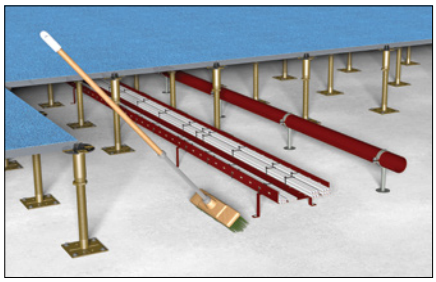
The insulation used in these tests is Rockwool Fire Tube pipe insulation with a density of 140kg/m^3 or Rocklap H&V pipe section with a density of 120kg/m^3 so both these types are approved. The pipes have been tested in an Option 2 configuration (section Figure E.1 BS EN 1366-3: 2009) with three pipes touching and also very close to the edge of the batt so there are no spacing restrictions for adjacent pipes.

Penetrating service (mm)	Pipe insulation thickness (mm)	Integrity (minutes)	Insulation (minutes)
HDPE pipe 40dia x 1w	-	120	120
HDPE pipe 40dia x 3.7w	-	120	120
HDPE pipe 63dia x 3.8w	-	120	120
HDPE pipe 63dia x 5.8w	-	120	120
PE pipe 40dia x 5.5w	-	120	120
PE pipe 160dia x 4.9w	-	120	120
PE pipe 160dia x 9.5w	-	120	120
PVC-U pipe 40dia x 1.9w	-	120	120
PVC-U pipe 40dia x 3w	-	120	120
PVC-U pipe 63dia x .5w	-	120	120
PVC-U pipe 63dia x 5.8w	-	120	120
PVC-U pipe 160dia x 6.2w	-	120	120

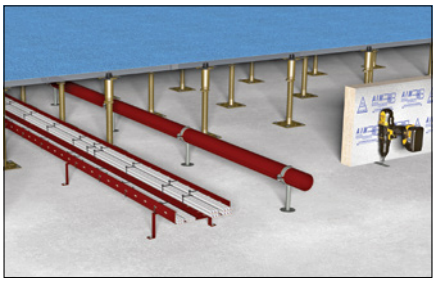
Table 12d. Approved Scope for Plastic Pipe Services through AIM RAF Fire Barriers

All the plastic pipes were tested without insulation in a linear arrangement (Option 1 configuration) and were spaced 30mm apart 200mm from the vertical and 50mm from the horizontal edges of the batt so these are the minimum dimensions approved.

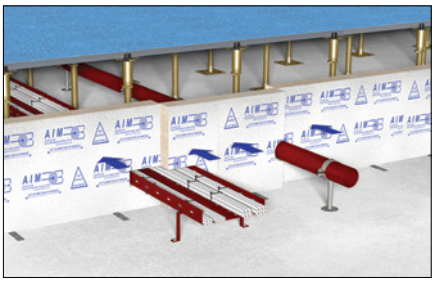
SERVICE PENETRATIONS (AROUND PRE-EXISTING NON-COMBUSTIBLE SERVICES)



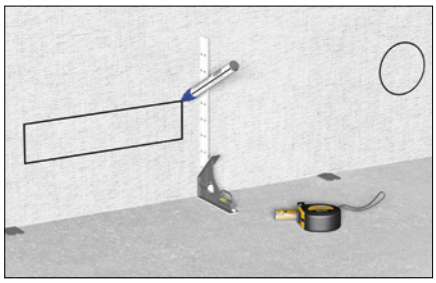
1 Check the floor is clear of debris; seal any imperfections with intumescent mastic.



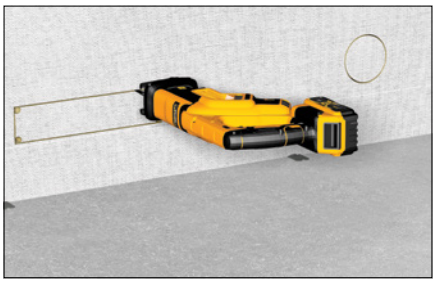
2 Fit the Raised Access floor Fire Barrier in the usual manner remembering to use fixing clips.



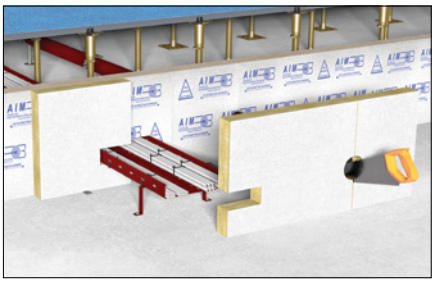
3 Fit the Raised Access Floor Fire Barrier tightly around the services; fill any gaps by packing with off-cut material and make good with intumescent mastic.



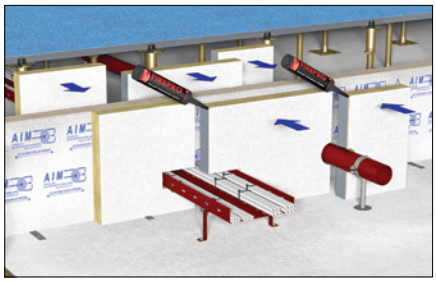
4 Mark where the services will penetrate the Ablative Coated Batt. **These need to be at least 200mm from each end of the Ablative Batt.**



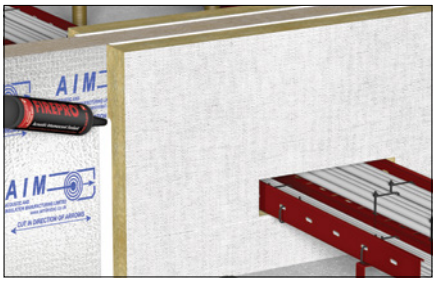
5 Cut openings into the Ablative Coated Batts to accept the services.



6 Cut the Ablative Coated Batts into two sections through the middle of the opening.

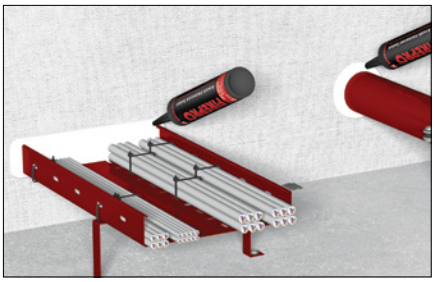


7 Fit the Ablative Coated Batts around the services. **The cut edges of the Ablative Coated Batt need to be coated with intumescent mastic to adhere them together.**



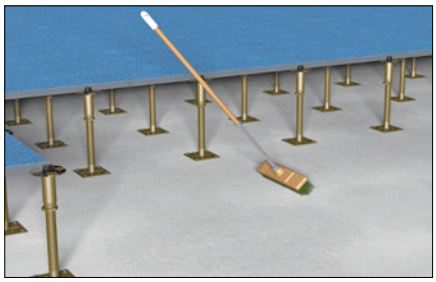
8 Seal the outer edge of the Ablative Coated Batts to the face of the Raised Access Floor Fire Barrier using Rockwool FirePro® Acoustic Intumescent Sealant*.

*NOTE: Only the combination of Rockwool Ablative Batt with FirePro® Acoustic Sealant has been tesetd as a system. The use of other products will require independent testing or approval of a competent person such as a fire engineer.

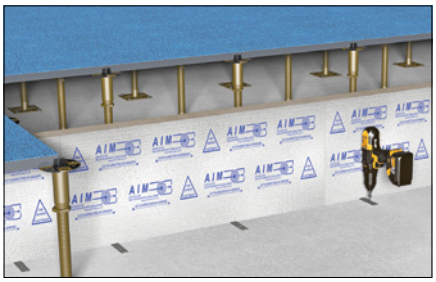


9 Pack any gaps or voids with off-cut Ablative Coated Batt material and make good with intumescent mastic or Ablative Paint.

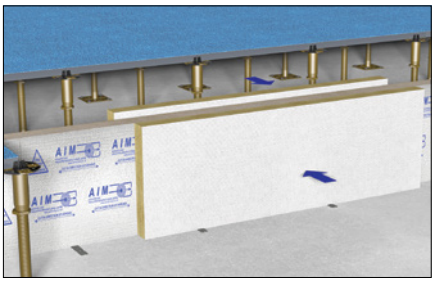
SERVICE PENETRATIONS (FITTING NON-COMBUSTIBLE SERVICES THROUGH THE BARRIER)



1 Check the floor is clear of debris; seal any imperfections with intumescent mastic.



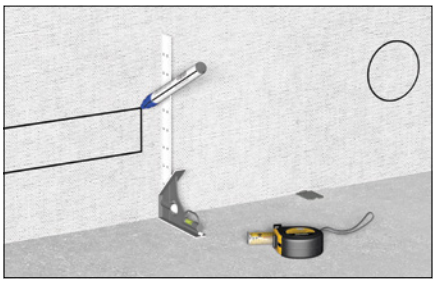
2 Fit the Raised Access floor Fire Barrier in the usual manner remembering to use fixing clips.



3 Fit a Rockwool Ablative Coated Batt to either side of the Raised Access Floor Fire Barrier. Remember the services need to be at least 200mm from each end of the Ablative Batt.

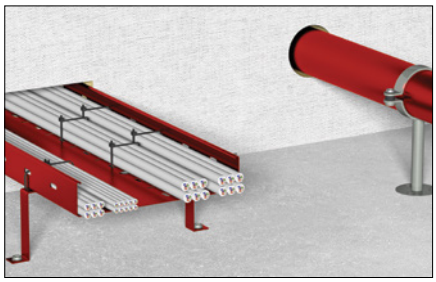
4 Seal the outer edge of the Ablative Coated Batts to the face of the Raised Access Floor Fire Barrier*.

*NOTE: Only the combination of Rockwool Ablative Batt with FirePro® Acoustic Sealant has been tested as a system. The use of other products will require independent testing.

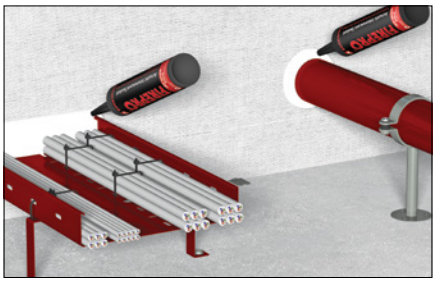


5 Carefully mark where the services will penetrate through the Ablative Coated Batts and Raised Access Floor Fire Barrier.

6 Cut openings into the Ablative Coated Batts to accept the services.

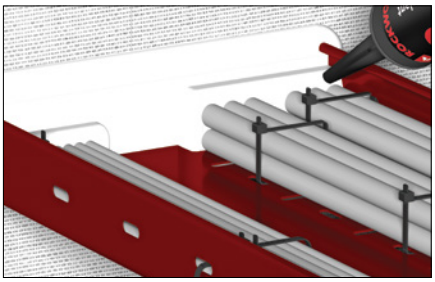


7 Pass the services through the apertures cut.



8 Seal where the services penetrate by packing the opening with off-cut Ablative Batt material and make good with intumescent mastic or ablative paint*.

*NOTE: Only the combination of Rockwool Ablative Batt with FirePro® Acoustic Sealant has been tested as a system. The use of other products will require independent testing.



9 Make sure no gaps or voids are present anywhere in the assembly.

MAINTENANCE

This product does not contain moving parts and, if undisturbed in the underfloor cavity, requires no routine inspections or maintenance.
It is recommended that the integrity of the barrier is rechecked if further works are carried out that may have involve disturbing the product e.g. installing new cables.

AIM
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