

# Wall Cavity Fire Barrier

Fire and Smoke Barrier for masonry cavity walls.



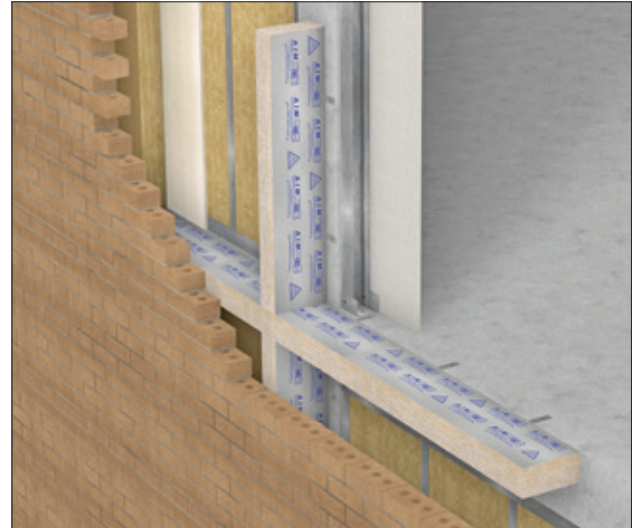
## Technical Guide

### PRODUCT

AIM Wall Cavity Fire Barrier is made from foil faced high density Rockwool stone wool and is suitable for use in all masonry cavity walls, as well as for fire stopping between a curtain wall system and a concrete floor slab. The barrier prevents the passage of heat, flame and smoke within the cavity it fills for one or two hour fire rating periods.

### APPLICATIONS

AIM Wall Cavity Fire Barrier may be used to provide a fire barrier in masonry curtain wall systems and masonry cavity walls. It is typically used vertically and horizontally to provide a fully closed cavity fire barrier along compartmentation lines in the outer leaf of the building.



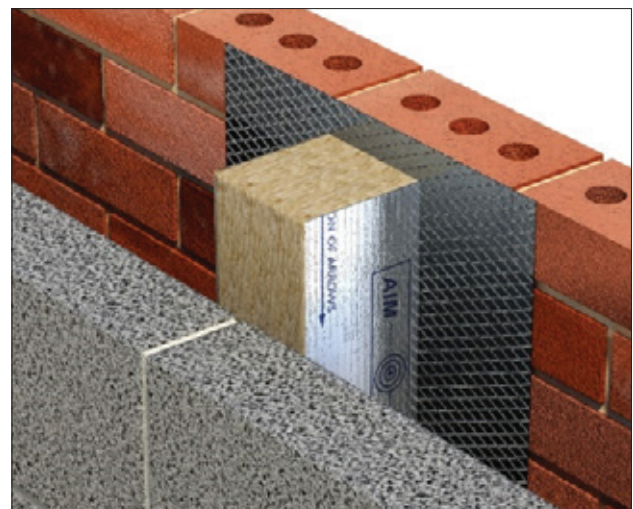
Example product installation schematic using materials by others

### FEATURES

- High density foil faced stone wool barrier.
- Thicknesses to provide 1 and 2 hour fire rating.
- For use within voids up to 400mm.
- Reduces airborne transmission of sound by a minimum of 21dB  $R_w$

### BENEFITS

- Prevents the passage of Heat, Fire and Smoke through external wall cavities.
- Reduces airborne sound through the external wall cavity.
- The product provides up to 120 minutes Integrity & Insulation when tested to BS 476-20.



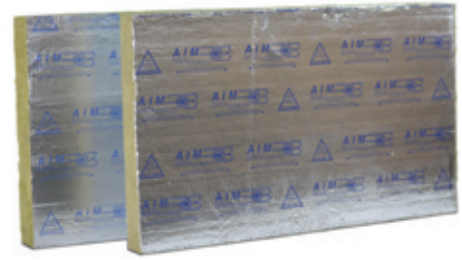
## COMPONENTS available from AIM



Wall Cavity Fire Barrier  
Fixing Brackets



Acrylic fire rated intumescent mastic  
(optional extra)



Barrier

## PHYSICAL INFORMATION

### AIM Wall Cavity Fire Barrier cut to size

- Lengths: 1000mm
- Thickness: 75mm or 100mm
- Foil Facing (with AIM logo)
- Cavity widths: 50 - 400mm (barrier to be compressed by 5%)
- Faced with reinforced aluminium foil for enhanced smoke resistance

### Packaging (cut product)

AIM Wall Cavity Fire Barrier are generally packed into cartons and stretch wrapped onto wooden pallets with a showerproof polythene pallet cover and high quality edge protectors.

### AIM Wall Cavity Fire Barrier Slab

- Slab thickness: performance
  - 75mm: 60 minutes
  - 100mm: 120 minutes
- Slab size: 1000 x 600mm and 1000 x 1200mm
- Foil facing imprinted with AIM logo.
- Available polythene sleeved when supplied pre-cut to size

### Packaging (Slab product)

Orders for slab and half slab barrier will be supplied stretch wrapped onto pallets with a showerproof polythene pallet cover and edge protection (ie, no cartons).

## AS STANDARD

AIM Wall Cavity Fire Barrier is supplied either cut to size, complete with appropriate clips or in slab form with clips sold as separate items to quantities determined by the installer.

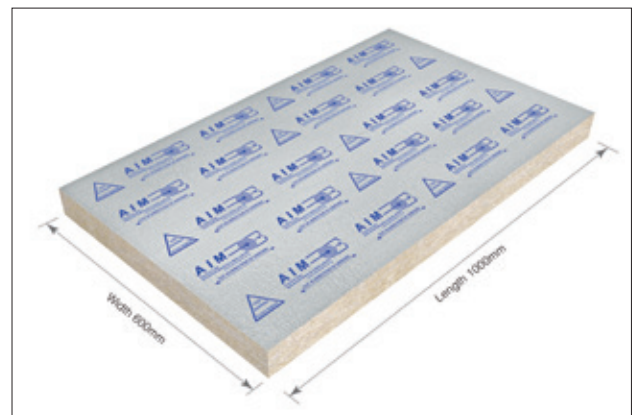
## OPTIONS

Foil tape for sealing joints where the barrier is installed in cavities over 250mm.

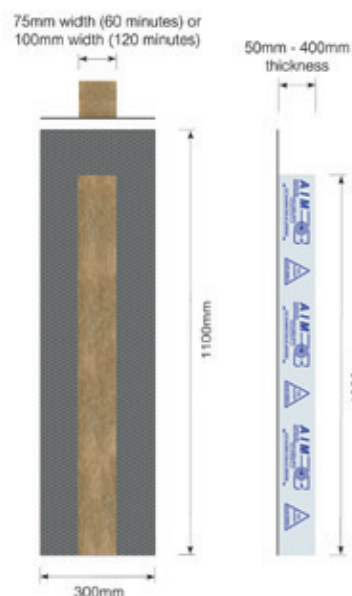
Barrier with a DPC\*

Barrier in a polythene sleeve\*

\* These product variants are available but have not been fire tested. Their use would be subject to the approval of the projects fire engineer or consultant.



### 75mm or 100mm Wall Cavity Fire Barrier complete with DPC



## TECHNICAL INFORMATION

### Fire Performance

Performance is related to barrier thickness.

Tested to BS 476-20 and assessed by the Building Research Establishment (BRE).

Thickness of Fire Barrier	Integrity / Insulation
75mm - up to 400mm cavity	60 minutes
100mm - up to 400mm cavity	120 minutes

Joints must be taped where the cavity is over 250mm

Max Cavity	No. of clips per length of barrier	Clips gauge
400mm	2	0.9mm

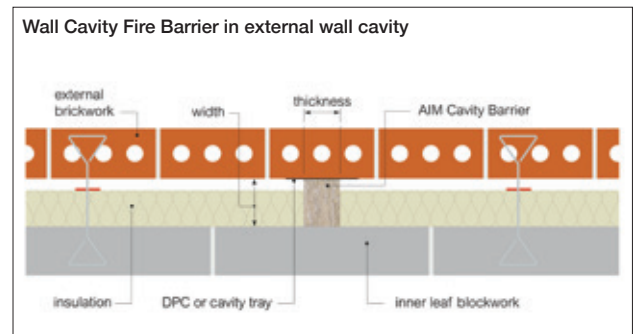
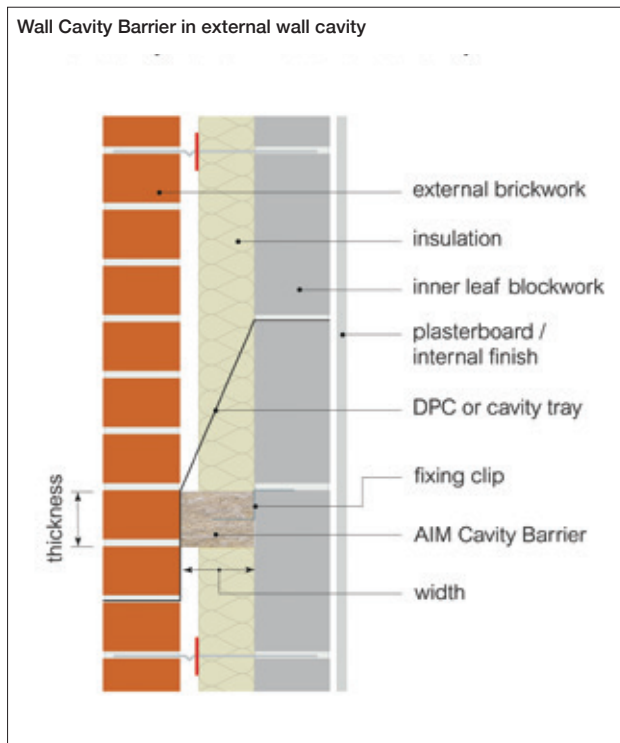
## TECHNICAL REPORTS

BRE Global Assessment Report P105043 - 1004



AIM are partners with NBS. Our products can be found on NBS Source and have been authored to NBS specification standards and have both CAWS and Uniclass 2015 classifications.

## APPLICATION DETAILS

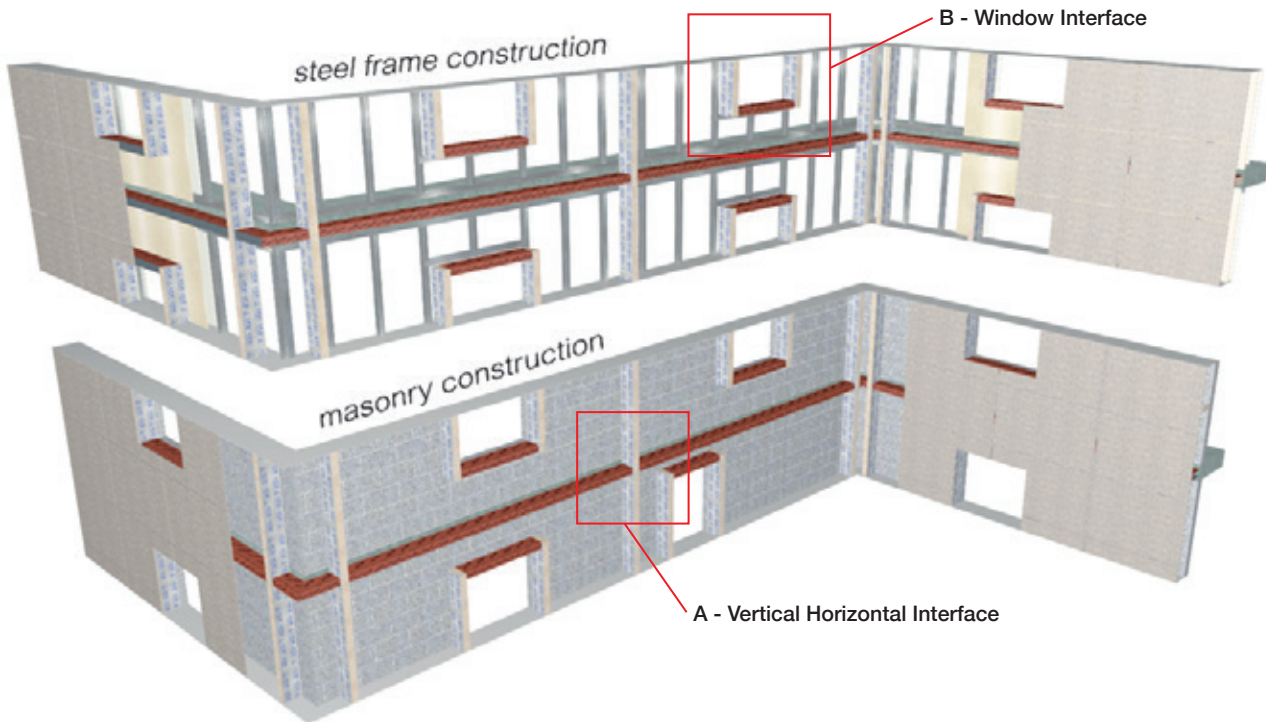


## COMPARTMENTATION AND RAINSCREEN CLADDING SOLUTIONS

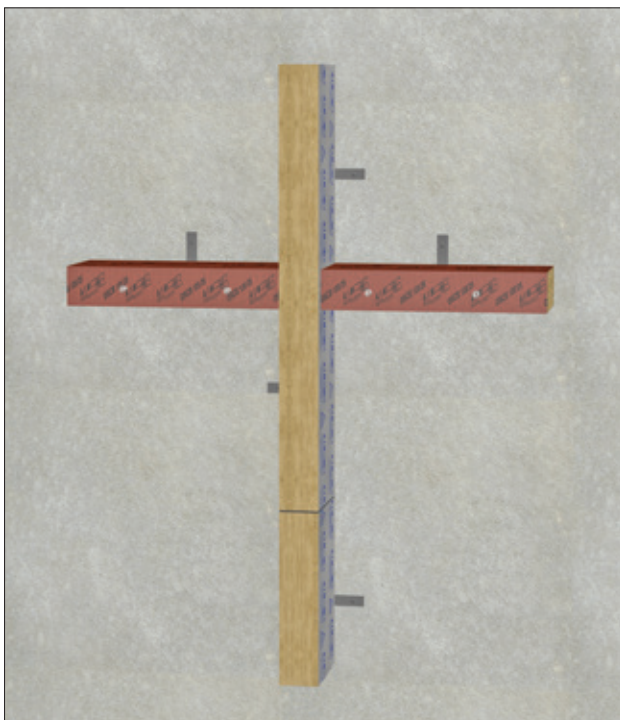
In general, AIM Wall Cavity Fire Barriers are used in conjunction with AIM's OSCBs. The AIM Wall Cavity Fire Barriers tend to be used for vertical fire stopping and permitting free flowing ventilation through the cavity in a horizontal plane. Wall Cavity Fire Barriers provide a fully filled cavity solution and are generally used vertically to prevent the spread of fire across the face of a building.

The drawings below provide guidance as to how the two products are combined to provide an overall fire stopping solution.

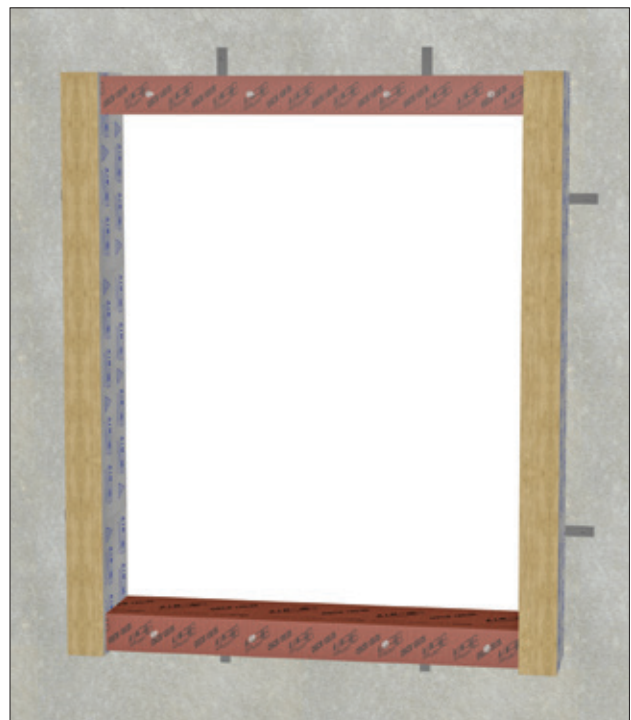
Please note: the drawing below reflects typical cavity barrier locations and is presented for guidance purposes only. The specifier and user must seek formal approval regarding cavity barrier location requirements on a project basis.



**A - VERTICAL HORIZONTAL INTERFACE**



**B - WINDOW INTERFACE**



## INSTALLATION GUIDELINES

AIM Wall Cavity fire Barrier is friction fitted into place in conjunction with fixing clips; it must fit tightly and completely fill the cavity with 5% compression. If the barrier is also being used to prevent air leakage, it requires taped joints and intumescent mastic to the linear edges to create a seal.

Installations in cavities over 250mm should also use foil tape between adjoining sections.

### Clips

Clips are required when the barrier is installed. Two clips per length are required for cavities up to 400mm. Clips are supplied as flat strips, prenotched to allow them to be easily formed on site and with pre-stressed snap off points to enable the correct length to be created.

Clips must not be installed with the sharp points left exposed at any time, due to risk of serious injury.

For horizontal barrier, the clips should be embedded in the barrier to approximately  $\frac{3}{4}$  barrier width prior to fitting so that the top leg of the clip is level with the top of the barrier. The barrier is pushed into the cavity until the top leg of the clips touches the floor slab,

and the top surface of the cavity barrier is flush with the slab.

For vertical barrier, where clips are used these may have to be fixed to the inner wall, before the barrier is installed. When the barrier has to be installed before the outer wall layer, the barrier may require retaining straps to prevent it falling off prior to completion of the wall.

Butt end joints must be tight. The ends of adjoining barriers must be fitted in contact for the full barrier width and taped in cavities over 250mm.

### Caution

If the gap to be filled is between two building components which might separate in a fire, the two components must be mechanically linked so that separation cannot occur.

### Masonry Cavity Walls

Horizontal Barrier: Bed the fixing clips into the joints in the internal leaf. A damp proof membrane or cavity tray must be installed into the cavity wall immediately above, and to the outside of, the fire barrier.

### Items required for installation



PPE abrasion resistant gloves



PPE impact resistant goggles



RPE dust mask



Sharp knife



Tape measure



Insulation saw



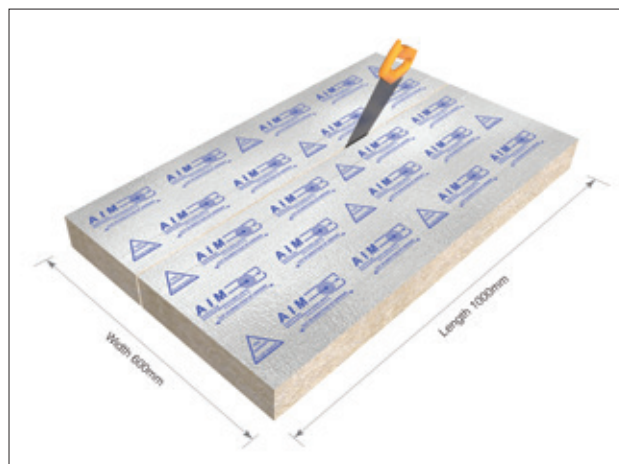
Acrylic fire rated intumescent mastic (optional extra)

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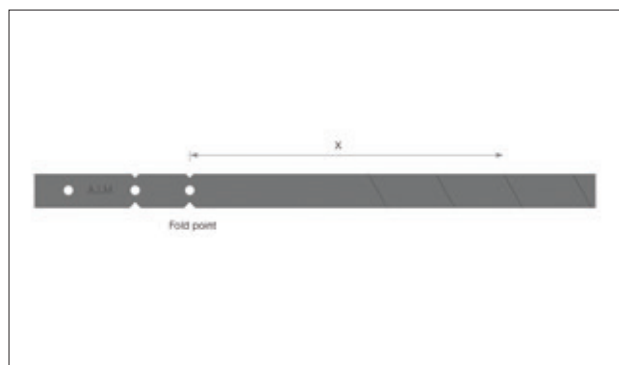
Check that the Wall Cavity Fire Barrier is the correct thickness for the cavity. The barrier should be 5% larger than the cavity.



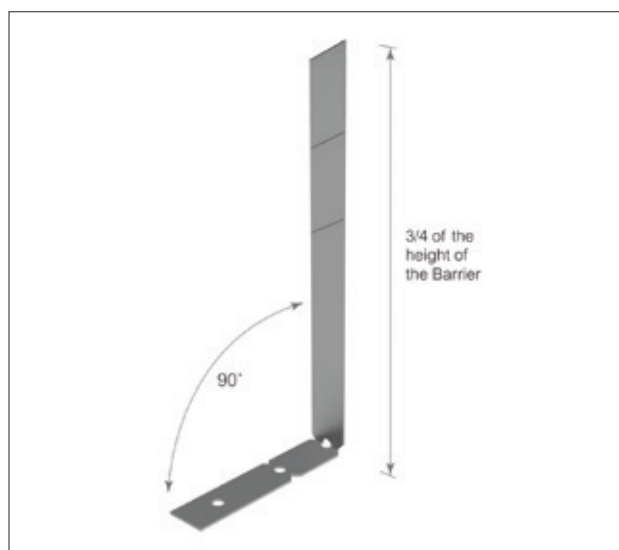
- 2** Measure the cavity depth and add 5%. Mark the slab and carefully cut using an insulation saw or hand saw. Please cut in the direction of the arrows printed on the foil facing. Note: This step is not required if installing Wall Cavity Fire Barrier cut to size.



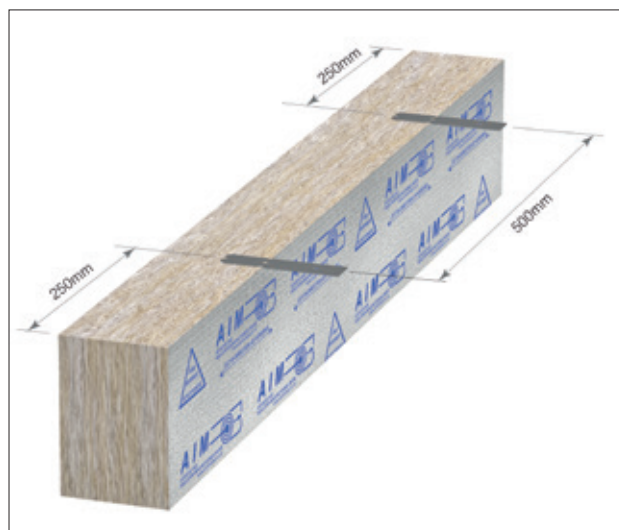
- 3** Snap the fixing clips to the correct length. Dimension X should be three quarters of the barrier's height.



- 4** Form two fixing clips to 90° to form an L shape



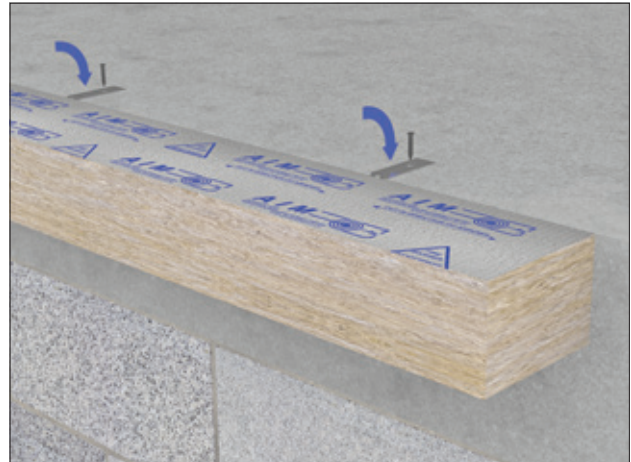
- 5** Insert two fixing clips into the barrier at 500mm centres approximately 250mm from each end.



- 6** Hold the section of barrier tightly against the abutting section and secure the barrier to the substrate.



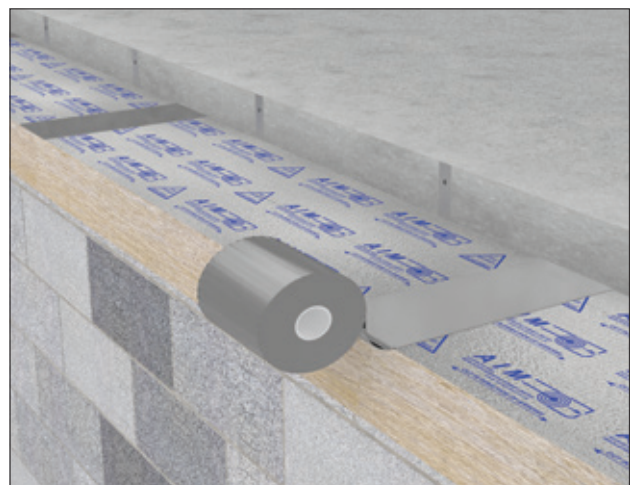
- 7** If the barrier is being used at the perimeter of a concrete floor slab, fit the barrier so it sits level with the top of the floor slab. Fold the clips over and secure them to the top of the slab.



- 8** Check for any gaps between the barrier and substrates. All gaps should be fully sealed with fire rated intumescent mastic.



- 9** Foil tape should be applied to the upper surface in cavities 250mm to 400mm.



## STORAGE

Cut product is supplied in cartons on pallets, slab 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.

## MAINTENANCE

This product does not contain moving parts and, if undisturbed in the cavity, requires no routine inspections or maintenance.

It is recommended that the integrity of the barrier is rechecked if further works are carried out, which may involve disturbing the product.

## DURABILITY

AIM fire barriers are chemically inert, will not sustain vermin and do not encourage the growth of rot, fungi, moulds or bacteria. They are compatible with all normal building materials. Rockwool stone wool has been proven in service for over 60 years, in a wide range of climates and degrees of exposure. It will generally perform effectively for the lifetime of the building, plant or structure.

## 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 safety handling information sheet is available upon request.

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

## ENVIRONMENT

Global warming potential = zero

For product recycling please contact Rockwool  
T: 01656 868400 E: recycling@rockwool.co.uk

## ORDERING

To order this product the following information will be required:

- Cavity depth in mm
- Fire Performance required
- Approximate quantity
- Delivery location

All AIM fire barriers are made to order. Products are typically supplied in seven to ten working days but lead times may vary depending on existing factory commitments.

There is no minimum order quantity or value although small orders may attract transport surcharges.

## TECHNICAL SUPPORT

Technical Support is available from our experienced sales team on 01293 582 400 or sales@aimlimited.co.uk

## ABOUT AIM

AIM are a quality insulation convertor with over 30 years experience in the design, testing & manufacturing of high quality fire barriers for customers worldwide.

AIM are members of



AIM working in partnership with



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