AIM Wall Cavity Fire Barrier & Fire Barrier Slab

Foil Faced Rockwool stone wool Fire and Smoke Barrier for all cavity walls and curtain walls, horizontal and vertical use

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

**Specification**
AIM CAVITY FIRE BARRIER
Lengths: 1000mm (Available cut to size or in slabs)
Foil Facing (with AIM logo)
Cavity widths: 50 - 600mm
• No mastics or sealants required
• Tested to BS 476 part 20 and assessed by Warrington Fire Research Centre
• Non-combustible to EN 13501-1 and classified A1
• Faced with Class O reinforced aluminium foil for enhanced smoke resistance
• Ozone depletion potential of zero; no CFCs or HCFCs used in manufacture

AIM FIRE BARRIER SLAB
Slab thickness:
75mm: 60 minutes - Butt end
100mm: 120 minutes - Rebated end
Slab size:
1000 x 600mm and 1000 x 1200mm (full pallets only)
• Foil facing imprinted with AIM logo. Cut in the direction of the arrow
• Available polythene sleeved when supplied pre cut to size
• Global warming potential = zero

**Curtain Wall Systems**
AIM Wall Cavity Barrier is suitable for use in curtain wall cladding systems. The performance of the fire barrier is dependent upon the integrity and stability of the cladding system in the region of the barrier.

Should the curtain wall cladding bow or distort significantly in a fire, the gap that the fire barrier is filling may widen causing loss of integrity. Where this is a possibility, the cladding system must be mechanically linked so that separation cannot occur.

The system manufacturer of the curtain wall cladding system must confirm its suitability for use with fire barrier for the fire resistance period required.

**Fire Performance**
Thickness is measured as the distance between one compartment and the next, which the fire stop or barrier is separating. The 60 minute barrier has butt end joints. The 120 minute barrier has lap end joints.

<table>
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<tr>
<th>Fire Resistance Minutes</th>
<th>Thickness of Fire Barrier mm</th>
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<tbody>
<tr>
<td>60</td>
<td>75 - up to 300mm cavity</td>
</tr>
<tr>
<td>120</td>
<td>100 - up to 600mm cavity</td>
</tr>
<tr>
<td>240</td>
<td>100mm with lap joints</td>
</tr>
<tr>
<td>300</td>
<td>100 EHD* with lap joints</td>
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</table>

*EHD = Extra high density barrier
Clips must not be installed with the sharp points left exposed at any time, due to risk of serious injury.

**Installation**

AIM Wall Cavity Barrier is push fitted into place; it must fit tightly and completely with approximately 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. Wall Cavity Barrier is available notched and in non standard lengths.

**Clips**

Clips are required when the barrier is installed horizontally. They may be omitted when the barrier is installed vertically into cavities less than 250mm, provided the barrier is supported at its base. Two clips per length are required for cavities up to 400mm, three clips per length are required for cavities over 400mm (see table). 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.

**Fitting**

- **Horizontal Barrier**: The clips should be embedded in the barrier to approximately ¾ 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.

**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. Clips may be omitted in masonry cavity walls, provided the barrier is installed immediately above a row of metal wall ties where these are spaced at no more than 500mm centres.

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**Clip Selection Table**

<table>
<thead>
<tr>
<th>Maximum Cavity mm</th>
<th>No. of Clips per length of barrier</th>
<th>Clips Gauge mm</th>
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<tbody>
<tr>
<td>400</td>
<td>2</td>
<td>0.9</td>
</tr>
<tr>
<td>500</td>
<td>3</td>
<td>1.2</td>
</tr>
<tr>
<td>600</td>
<td>3</td>
<td>1.6</td>
</tr>
</tbody>
</table>

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

**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.