

AIM RAISED ACCESS FLOOR FIRE BARRIER

December 2003

Introduction

AIM Raised Access Floor Fire Barrier is made from high density fire tested rock wool slab, faced with Class O foil. The foil is imprinted with the AIM Logo and arrows, which ensures the authenticity of the product and assists with correct cutting procedure when the barrier is supplied in slab form (see below). The Barrier is supplied unfaced for voids less than 50mm.

The Barrier is cut to a height 5% greater than void and is permanently held in place by compression without the need for adhesive or intumescent mastic. AIM Access Floor Fire Barrier prevents the passage of flame and smoke through the void being fire stopped, for at least the period of fire rating specified.

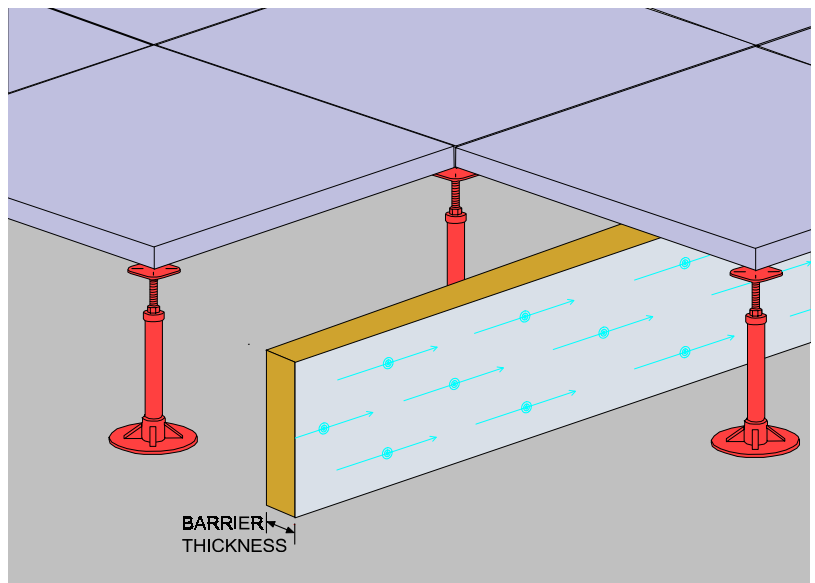
AIM Raised Access Floor Fire Barrier is supplied either cut to size to suit void height or in slab form for cutting to height on site.

System Descriptions

- AIM ½ hour RAF Barrier.
- AIM 1 hour RAF Barrier.
- AIM 2 hour RAF Barrier.
- AIM High Void RAF Barrier is used where the void height exceeds 600mm. It is 150mm thick and is suitable for ½ hour and 1 hour applications.

All barriers offer integrity and insulation to their specified fire rating (i.e. AIM ½ hour barrier gives 30 minutes integrity plus 30 minutes insulation).

Foil Faced Mineral Wool Fire and Smoke Barrier for the cavities beneath Raised Access Floors.



- ~ **Lengths: 1200mm**
- ~ **Available cut to size or in slabs**
- ~ **Foil Facing (with AIM logo)**
- ~ **Voids: 15 - 1000mm**
(barrier to be compressed by about 5%)

Requirements for cavity barriers

Raised Access Floor fire cavity barriers are required for two applications:

1. Subdivision of large uninterrupted cavities.
 - i) To comply with Building Regulations - 30 minutes integrity plus 15 minutes insulation.
 - ii) To comply with LPC Design Guides - 30 minutes integrity plus 30 minutes insulation
2. Alignment under a partition, to maintain partition rating.
 - i) 30 minute partition - 30 minutes integrity plus 30 minutes insulation.
 - ii) 60 minute partition - 60 minutes integrity plus 60 minutes insulation.
 - iii) 120 minute partition - 120 minutes integrity plus 120 minutes insulation.

AIM RAF Fire Barrier

Type	Fire Resistance	Thickness	Maximum void unsupported	Maximum void supported	1200 x 600 slabs to a carton	1200 x 1200 slabs to a pallet ³
AIM ½ hour RAF Barrier	30 minutes	50mm ¹	250mm	600mm	9	40
AIM 1 hour RAF Barrier	60 minutes	75mm ²	400mm	600mm	6	27
AIM 2 hour RAF Barrier	120 minutes	100mm	400mm	600mm	4	20
AIM High Void RAF Barrier	30 & 60 minutes	150mm	600mm	1000mm	NA	13

4 hour RAF Barriers are available— please contact AIM.

Notes: 1. 75mm for voids 401—600mm
2. 100mm for voids 401-600mm

3. Full pallets only

Fire Resistance

The performance of the AIM fire protection range has been tested to BS 476 part 20 and assessed by Warrington Fire Research Centre to achieve the values stated in the table, which apply to insulation and integrity. The Barrier is incombustible to BS 476 part 4, rated Class 1 Surface Spread of Flame to BS 476 part 7 and complies with the performance requirements of Class O of the Building Regulations.

AIM Raised Access Floor Fire Barrier is supplied in lengths of 1200mm either cut to size or in fixed 600mm or 1200mm widths. (Note that 1200 x 1200mm slabs are only available in full pallet quantities).

Installation

The Barrier must be compressed by about 5% when installed. It should maintain contact with the underside of the access floor and the top of the structural floor so that no gaps are apparent as this may risk loss of integrity. Any gaps caused by joints or coffers in the floor must be fire stopped. Where the Barrier has butt end joints, these must be tight so that the ends of adjoining barriers are fitted closely together.

Slab Cutting

- 1) Cut the Slab in 1200mm strips in the same direction as the AIM logo arrow.
- 2) The strips must be compressed by about 5% when installed.
- 3) Do not exceed recommended void height.

Supporting Raised Access Floor Barrier

The Raised Access Floor Barrier may be used unsupported to the height limits specified in the table. Over this, the barrier requires support using one of the two following systems.

AIM Buttress Bracket System.

This system comprises triangular galvanised steel brackets which are fastened to the fire barrier with 2 'pigtail' screws. Brackets are used at barrier joints and at the midpoint between. At joints, 1 pigtail screw is inserted into each section of barrier. At midpoint, the bracket is placed on the other side of the barrier. This ensures that the barrier remains stable with close butted joints.

Pedestal Connection System

One face of the barrier must touch a row of pedestals of the Raised Access Floor system. The RAF Barrier is connected to each pedestal with 1.5mm stainless steel wire that is fitted around the pedestal, pushed through the barrier and has its ends twisted together. When the wire is pushed through the barrier, the two strands must be at least 50mm apart. The vertical spacing of the wires, up each pedestal, must not exceed 200mm.

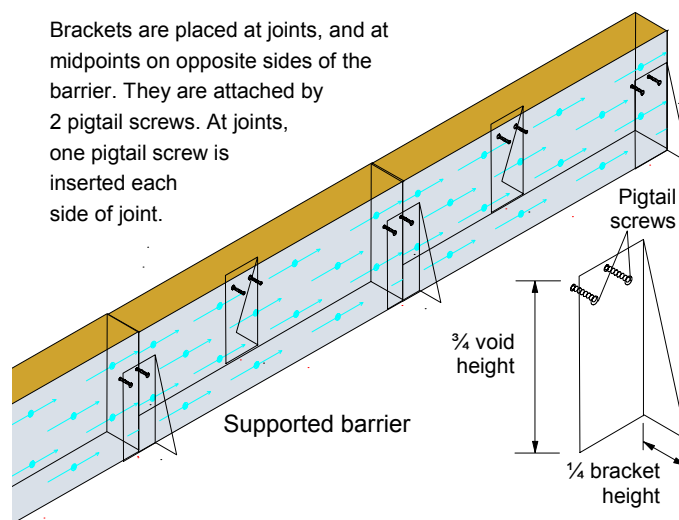
The access floor and structural slab should have a fire rating at least that of the barrier

Acoustic Performance

The AIM Raised Access Floor Fire Barrier will reduce flanking transmission of sound through the void it fills by at least 9dB. Where the barrier is installed beneath a partition line into an imperforate timber based access floor system of at least 30mm thickness, with floor covering over, the room to room sound reduction on the path of the fire barrier will be at least 45dB. The AIM Raised Access Floor Fire Barrier must faithfully follow all the partition lines directly above, and be compressed in installation as per AIM instructions, with no gaps. The partition must achieve at least 45dB SRI and similar acoustic consistency provisions be made at ceiling and further, similar, room to room interfaces.

AIM Buttress Bracket System

Brackets are placed at joints, and at midpoints on opposite sides of the barrier. They are attached by 2 pigtail screws. At joints, one pigtail screw is inserted each side of joint.



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