



ROCKWOOL FIRE BARRIER

FIRE CAVITY BARRIER FOR ROOF VOIDS, LOFT AREAS AND SUSPENDED CEILING VOIDS

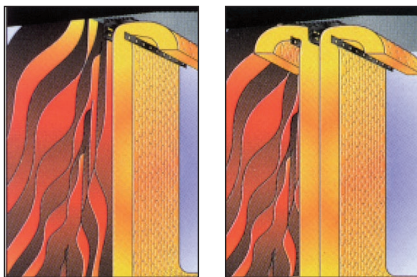
INSULATION & INTEGRITY FIRE CAVITY BARRIER

A versatile, flexible curtain which provides an insulation, smoke and fire cavity barrier. It consists of a rock mineral wool reinforced fleece which is stretched between perimeter fixings and wire stitch jointed for maximum effectiveness.

Rockwool Fire Barrier is 50mm thick and supplied in a roll size 4000mm x 1000m. Rockwool Fire Barrier can be used as a half hour fire and cavity barrier in a single 50mm blanket or up to one and a half hours when two 50mm blankets are used together.

Rockwool Fire Barrier has been tested or conforms to the following standards:

- BS 476: Part 4, 1970 Non Combustibility or Building Materials
- BS 476: Part 6, 1989 Fire Propagation of Building Materials
- BS 476: Part 7, 1987 Surface Spread of Flame
- BS 476: Part 22, 1987 Fire Test for Building Materials in Non Load bearing Elements of Construction.



30 min

60 min

The half-hour cavity barrier was tested to BS 476: Part 22 at Warrington Fire Research Centre in 1987 (Report NO. WARRES 41584). The test showed a 62 minutes stability and integrity before being discontinued, and 20 minutes insulation.

The one-hour cavity barrier was tested to BS 476: Part 22 at Warrington Fire Research Centre in 1989 (Report No. WARRES 46351). This test showed 105 minutes stability and integrity before being discontinued, and 90 minutes insulation.

Versatile

Tested to BS476, Part 22

Easy to handle

Simple to fix

Rockwool Fire Barrier can be supplied with aluminium foil facing on one or both sides, to provide excellent smoke barrier characteristics and improved acoustic attenuation properties. When used as a cavity barrier the minimum provisions when tested to the relevant part of BS 476 are 30 minutes integrity and 15 minutes insulation with each side tested separately.

ACOUSTIC PERFORMANCE (Room to noise reduction)

All values are estimated, based on total system integrity. Typical wet felt ceiling tile in lay-in-grid system - 30dB. As above + 50mm thick Rockwool Fire Barrier vertically hung from the soffit leaving no gaps and with 150mm overlap on top of ceiling - 43dB. Installed as 2, but faced with foil on one side - 45dB. 2 independently hung barriers with foil facing - 50dB.

STRUCTURAL STABILITY

The fire barrier must be hung from structural framework which can resist fire for the same period as the fire barrier system itself. It is very important to continuously support and thoroughly clamp the top edge of the fire barrier to the structural members in preference to the roof decking.

TYPICAL SPECIFICATION

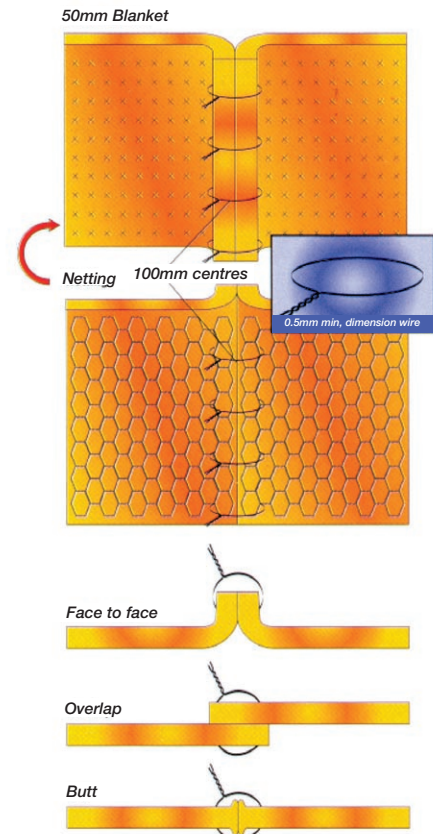
Fire Resistance to BS 476, Part 22 Integrity/Insulation 30 minutes, 60 minutes or 90 minutes.

Unless shown otherwise install barriers to subdivide the ceiling void into areas not exceeding 20Metres in one direction. Fit tightly and fix securely at perimeter and vertical joints leaving no open gaps



Minimum thickness for continuous clamping angle and strap: 1.5mm. Minimum diameter for threaded studs or bolts: 5mm installed at every 400mm interval. Minimum diameter for Lacing Wire: 0.5mm stitching at every 100mm interval along the butt, overlap or face to face joints.

FIXING DETAIL

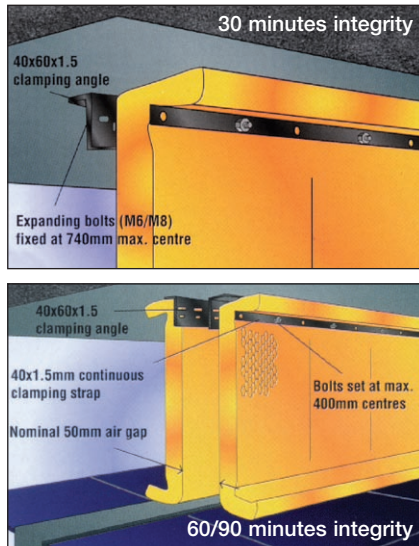




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METAL AND CONCRETE

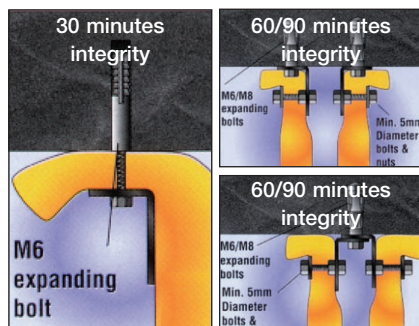


Soffit fixing

When fixing to a concrete soffit, a continuous clamping angle, size 40 x 60 x 1.5mm or 50 x 50 x 1.5mm, should be attached with M6 minimum expanding bolts anchored at 740mm maximum centres. 5mm diameter bolts and nuts should be used to attach Rockwool Fire Barrier to the clamping strap at maximum 400mm centres.

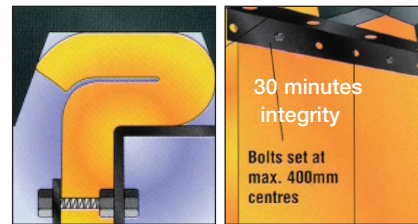
Fixing options

If direct fixing to a concrete soffit without the clamping strap, M6 expanding bolts at 300mm centres to the soffit should be used. Adjacent barriers should be wired tightly together. Rockwool Fire Barrier should also be draped over the suspended ceiling or wired to the grid. Vertical fixing to a perimeter wall should be made with a 1.5mm clamping strap.



Roofing - Troughed metal decking

In roof constructions with troughed metal decking, continuously support and clamp the top edge of the Rockwool Fire Barrier to the structure instead of the roof decking to maintain the fire integrity of the construction. Ensure all open spaces are tightly and securely filled, leaving no visible gaps.



TIMBER

Rafters - 50mm thick

In roof constructions where the timber is 50mm minimum thick, Rockwool Fire Barrier must be tightly butt jointed and stitched. The clamping strap should be attached with M6 screws or bolts at a maximum 300mm centres.

Rafters - less than 50mm thick.

Where the timber is less than 50mm thick, both sides of the truss will require the application of Rockwool Fire Barrier. The clamping straps should be attached with screws at a maximum of 400mm centres.

Transverse to Rafters

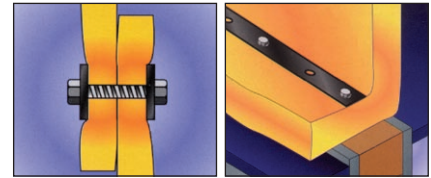
When installing Rockwool Fire Barrier transverse to the rafters, a continuous clamping strap must be secured to the underside of each rafter with M6 coach screws, or similar.

WALL JUNCTIONS

At the junction of separating and external walls in a timber frame construction, Rockwool Fire Barrier should be used to a depth of 300mm to provide a cavity barrier.

PARTITION HEADS

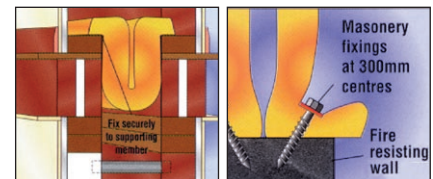
At the head of a fire rated partition, M6 coach screws should be used at a maximum of 400mm centres to attach the clamping strap to the head plate.



LONG DROPS

A drop of up to 6 metres can be achieved using a single length, or jointing in the manner shown. Subsequent lengths of up to 6 metres must use a clamping angle and strap fixing, suspended on hangers which are fixed directly to the soffit and extending downwards to provide a minimum overlap of 50mm at the junction of the fire barrier.

FLOOR JUNCTIONS

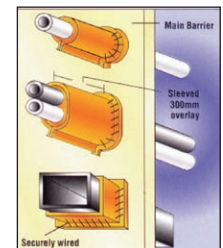


FIRE RESISTING WALLS

If the Rockwool Fire Barrier is used as a continuation of a fire resisting wall it is advisable that mechanical fixing and clamping strap is used.

PIPEWORK DUCTING AND BEAMS

When the area to be treated is penetrated by pipes, ducts or beams.



Rockwool Fire Barrier should be cut to accommodate the infrastructure and then re-stitched using a minimum 0.5mm wire with a 100mm maximum gap between stitches.

The pipe duct or beam is then sleeved one side for the 30 minute barrier and both sides for the 60 minute barrier, with a 300mm minimum overlay wired to the main barrier.