

### Introduction

PROMASEAL® Fire Barrier System consists of high density, rock wool panels with an ablative coating.

The system will seal the openings in fire situations to stop the spread of fire through openings in fire resistant walls and floors, where these are used for the passage of building and communication services.

### PROMASEAL® Fire Barrier Performance Chart - Up to 240 Minute - Walls

<b>Coating / DFT:</b>	Promaseal Ablative Coating/ 1mm thick		
<b>Density:</b>	160 kg/m <sup>3</sup> minimum		
<b>Barrier</b>	<b>Service</b>	<b>Integrity</b>	<b>Insulation</b>
<b>Single layer (50 mm)</b>	Cable Ladder (340mm wide x 100mm high max.)	240 minutes	N/A
	Cables up to 20mm diameter	240 minutes	N/A
<b>Double layer (2 x 50mm, with 30mm air gap between layers)</b>	Cable Ladder (340mm wide x 100mm high max.)	240 minutes	60 minutes
	Cable up to 20mm diameter	240 minutes	60 minutes
	PROMASEAL® Fire Barrier - with no service penetrations.	240 minutes	240 minutes
<b>Maximum aperture:</b>	1000mm high and 660mm wide subject to a maximum area of 0.6m <sup>2</sup> . Multiple apertures must be separated by a minimum of 240mm in concrete/masonry constructions.		
<b>Walls:</b>	The walls shall be a minimum of 140mm thick. The minimum density for the concrete or brick of the walls is 780kg/m <sup>3</sup> and for walls made of concrete blocks is 600 kg/m <sup>3</sup> . All concrete or masonry walls shall have at least the same fire rating as that required for the barrier.		
<b>Application Technique:</b>	<b>Concrete/masonry wall:</b> Boards tightly friction fitted into the aperture at mid-depth of the wall. Board joints and the board to aperture junction are sealed with PROMASEAL® Fire Barrier Coating. Apertures for penetrating items are to be tightly fitting and be sealed with PROMASEAL® Fire Barrier Coating and must be separated by at least 240mm.		
<b>Service Support Requirements:</b>	Services should be rigidly supported via steel angles, hangers or channels, not further than 500mm from the surface of the sealing system on both faces.		
<b>Acoustic Rating:</b>	1 x 50mm layer: Rw 43 dB 2 x 50mm layers (30mm air gap): Rw 48 dB. <i>These values are based on fire barrier penetrations representing 2.5% of the area of a 140mm dense block wall, having a base value of Rw 51dB.</i>		

**AUTHORITY:** Certifire Certificate No. CF426. Acoustics: HT 13528, 19<sup>th</sup> Oct 2006

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### Installation Procedure:

Remove any combustible materials from the service opening, and sweep away all loose debris from the inner surface of the opening and the surrounding area.

Remove any insulation or lagging from around penetrating services within the opening to ensure a good seal between the services and the PROMASEAL® Fire Barrier.

Ensure that all service penetrations are installed as required - although PROMASEAL® Fire Barrier can be reworked after installation to allow extra penetrations to be added.

Where PROMASEAL® Fire Barrier batts are cut to accommodate passage of services through the batt. The batt should be cut to tight-fit into the opening and tight-fit around the service penetrations.

Measure the size of the opening, the position and size of the services. Mask services where necessary. Mark the outline shape and the position and size of services onto the PROMASEAL® Fire Barrier batt and cut out using a saw or knife. Ensure a tight friction fit.

A thick layer of PROMASEAL® Fire Barrier Coating should be applied to all areas in contact around the reveal of the opening, and all edges of the batt should also be 'battered' using a trowel or pallet knife. This will ensure a bead of the coating is pushed to the back-face of the batt during installation.

Fit the PROMASEAL® Fire Barrier into position with the flat of the hand, ensuring a tight friction fit within the opening and around any penetrating services.

PROMASEAL® Fire Barrier Coating must be used to point-in any service penetrations through the batt. Services penetrating the batt should be rigidly supported no further than 500mm on both sides of the PROMASEAL® Fire Barrier seal face, using suitable steel angles, channels or hangers.

The fire seal must be installed using as few pieces of PROMASEAL® Fire Barrier as possible, with all pieces tightly fitted into position with minimal gaps and all joints and edges fully sealed using PROMASEAL® Fire Barrier Coating.

### Cables and cable trunk penetrations:

Coat back to cables and service penetrations through PROMASEAL® Fire Barrier, using PROMASEAL® Fire Barrier Coating is not essential.

However, any uncoated areas of the PROMASEAL® Fire Barrier should be made good using the PROMASEAL® Fire Barrier Coating, again a full over coat is not required.

Loose cables should be bunched together and tied where they pass through the PROMASEAL® Fire Barrier batt, ensuring any voids between them are sealed using PROMASEAL® Intumescent Sealant.

Cable trunking will need to be filled with PROMASEAL® Fire Barrier batt cut around the cables. Remove the trunking lid and cut PROMASEAL® Fire Barrier to tight-fit around cables. Seal all edges with PROMASEAL® Intumescent Sealant. Replace trunking lid and complete the PROMASEAL® Fire Barrier seal around the trunking penetration. If the cable tray has a large number of cables and little room for batt to be installed, the area all around the cables should be generously sealed using Promaseal Intumescent Sealant

### Plastic pipe penetrations:

PROMASEAL® Fire Barrier is not suitable for applications with plastic pipe penetrations requiring 240min fire integrity.

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### Treatment of gaps around services:

Gap Size (mm)	Gap Treatment
For gaps up to 3mm around services	PROMASEAL® Fire Barrier Coating must be used to seal around services.
For gaps 3mm - 5mm	PROMASEAL® Intumescent Sealant must be used.
For gaps 5mm –10mm	PROMASEAL® Intumescent Sealant must be used in conjunction with rock wool packing or off-cuts of PROMASEAL® Fire Barrier batt

### General:

The perimeter joints on the face of the PROMASEAL® Fire Barrier should be brushed with PROMASEAL® Fire Barrier Coating, overlapping the perimeter edge of the batt onto the surrounding substrate.

PROMASEAL® Fire Barrier Coating should be used to repair minor damage on the batt faces and joints to cover any exposed rock wool core of the batt. Application of PROMASEAL® Fire Barrier Coating to the entire face of the installed PROMASEAL® Fire Barrier is not necessary. PROMASEAL® Fire Barrier Coating only needs to be applied on joint areas of the face of the batt to ensure coverage to all joints, including perimeter joints.

The surround of the seal opening can be taped off with masking tape to ensure a neat finish of the PROMASEAL® Fire Barrier Coating covering the perimeter edge of the seal overlapping onto the surrounding substrate.

Apply a label to the finished seal, detailing the installer, date of installation, and specification of the seal.

**PROMASEAL® Fire Barrier batt Size:** 1200mm x 600mm x 50mm thick (including ablative coating), supplied individually wrapped in polythene bags. Nominal 8kg per batt.

**PROMASEAL® Fire Barrier Coating:** Available in 10kg (7 litre) tubs, colour – white. Normal application rate, 2mm thick film.

**PROMASEAL® Intumescent Sealant:** Available in 310ml cartridges, colour – white.

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