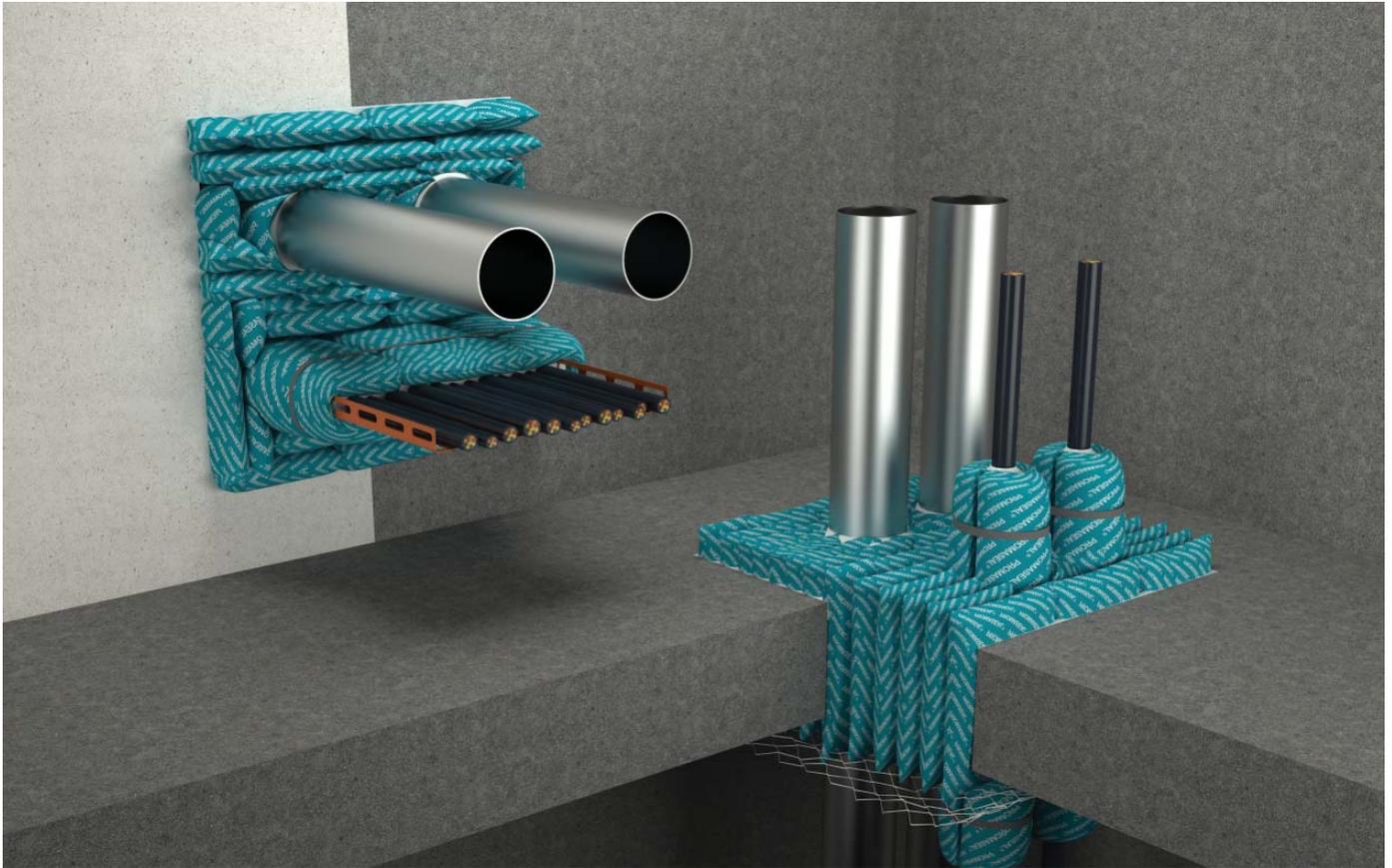


## PROMASEAL® Pillows Installation Instructions



PROMASEAL® Pillows are manufactured from treated cloth filled with a high density, granulated fire seal mineral wool. When exposed to fire, the pillows remain in place and char, thus forming a fire barrier of a solid mass of insulating material.

PROMASEAL® Pillows have been tested to BS 476: Part 20: 1987, BS EN 1366: Part 3: 2009 and AS 1530: Part 4: 2014 and achieved up to 180 minutes fire resistance in floors, masonry and light weight walls of the same or greater fire resistance. The fire resistance level (FRL) will be dependant upon the thickness of the building element and the type and size of penetrating services. The pillows are available in four sizes:

- 1) Extra Large, nominal size 300mm x 600mm x 40mm
- 2) Large, nominal size 300mm x 250mm x 40mm
- 3) Medium, nominal size 200mm x 250mm x 40mm
- 4) Small, nominal size 100mm x 250mm x 40mm

### Installation method

#### Penetration seals in concrete/masonry floors

The basic PROMASEAL® Pillows sealing system is up to 180 minute fire resistance performance when applied to

unpenetrated situations in floors. Various types of service penetrations have been evaluated within the system and achieve a range of fire resistance levels. Please consult Promat for full information.

Maximum dimension for floor openings is 0.25m<sup>2</sup> or 500mm x 500mm. If the height is less than 180mm, the width of the opening can be unlimited. For openings greater than these dimensions, either use PROMASEAL® Mortar or fix a structural element across the opening to create apertures of acceptable dimensions. If this structural member is formed from a steel member, it may also need fire protection. To provide protection to the steel member, calculate its Hp/A and protect with PROMATECT®-H, PROMATECT®-L, PROMATECT® 50 or PROMATECT® 100 boards.

PROMASEAL® Pillows must be very tightly packed into openings, starting at one edge and moulded to overhang the perimeter of the floor slab for support. Place the PROMASEAL® Pillows along one full side of the opening and gradually work into the centre of the opening.

All subsequent layers of PROMASEAL® Pillows must be staggered (overlapped), similar in manner to the way bricks or blocks are laid. Ensure the pillows are packed very firmly into position, using a rubber or wooden mallet or similar implement.

Ensure all gaps near the services or edge of the penetration are fully and properly sealed with PROMASEAL®-A Acrylic Sealant. To prevent removal of the pillows, it is recommended to seal the top side of the installed pillows with 1-2mm of PROMASEAL®-A Acrylic Sealant or fix a wire mesh under the floor opening.

### Penetration seals in fire resistant plasterboard or concrete/masonry walls

The basic PROMASEAL® Pillows sealing system is up to 180 minute fire resistance performance when applied to unpenetrated situations in floors. Various types of service penetrations have been evaluated within the system and achieve a range of fire resistance levels. Please consult Promat for full information.

Maximum dimension for wall openings is up to 1000mm wide x 600mm high. If the height is less than 180mm, the width can be unlimited. For openings greater than these dimensions, either use PROMASEAL® Mortar or fix a structural element across the opening to create apertures of acceptable dimensions. If this structural member is formed from a steel member, it may also need fire protection. To provide protection to the steel member, calculate its Hp/A and protect with PROMATECT®-H, PROMATECT®-L, PROMATECT® 50 or PROMATECT® 100 boards.

Ensure all gaps near the services or edge of the penetration are fully and properly sealed with PROMASEAL®-A Acrylic Sealant.

In steel or timber framed lightweight walls, the edges of the wall lining around the opening must be restrained by trimming out with additional framing and lining.

PROMASEAL® Pillows are also approved for use in Speedpanel walls for openings up to 1000mm wide x 700mm high. The area around the penetration must be thickened with 20mm PROMATECT® 100 boards on each face of the wall. Please contact Promat for further details.

To prevent removal of the pillows, it is recommended to seal the top side of the installed pillows with 1-2mm of PROMASEAL®-A Acrylic Sealant or fix a wire mesh over the wall opening.

### Use of Extra Large size PROMASEAL® Pillows and mesh guard

Where cable trays or bunches of cables pass through fire resistant barriers, Extra Large size PROMASEAL® Pillows can be used directly in contact with the penetrating services to provide insulation criteria as well as integrity. The pillows need to be held on to the services with metal straps. If the opening is larger, other size pillows can be used to fill in the rest of the opening. For other services such as metal pipes, it is advisable to use PROMASEAL® Wrap.

Alternatively, a mesh guard can be applied to cable trays or bunches of cables. The guard will need to be kept 50mm away from the services at the following lengths: 100mm for cable trays, 100-150mm for steel pipes and 150-500mm for copper pipes.

### Usage Rate (Guide only)

Approximately 120 bags will fill 1m<sup>2</sup>, but a mixture of bags is required to do the job properly when there are penetrations passing through. As a "rule of thumb" for 1m<sup>2</sup> of clear area, a combination of various pillow sizes will be required. The following shows a possible combination of pillows that could be used:

- Extra Large / Large size pillow, approximately 90 bags
- Medium size pillow, approximately 45 bags
- Small size pillow, approximately 15 bags

This is for "clear area" without services. The installer will need to determine the coverage for services, e.g. for 0.5m<sup>2</sup> clear opening, the usage rate could be multiplied by 0.5. Further, for 0.75m<sup>2</sup> clear opening, the usage rate should be multiplied by 0.75.

In some cases with highly conductive materials (e.g. copper pipes) it may be necessary to install extra large pillows or PROMASEAL® Wrap so that insulation criteria is achieved so as to satisfy the requirements of the BCA. Please consult Promat for advice.

For cables and cable tray penetrations through walls, PROMASEAL® SupaWrap can be applied. Please contact Promat for more information.

**Promat provides a wide range of systems for compartmentation, fire resistant air and cable ducts, structural steel protection, fire stopping and partitions. For assistance with any passive fire protection problems, please consult Promat.**



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