



# The Passive Fire Protection Handbook

## Chapter 7: Penetration Seals - Promat PROMASEAL® Expansion Joint Strip

### PRODUCT DESCRIPTION

Promat PROMASEAL® Expansion Joint Strips are highly compressible, flexible, fire resistant seals which are used where movement joints are formed in the structure of a building.

Promat PROMASEAL® Expansion Joint Strips consist of layers of intumescent material bonded to Class 0 foam.

Promat PROMASEAL® Expansion Joint Strips have been successfully fire tested and assessed for up to 240 minutes in joints in walls and floors.

### APPLICATIONS

Promat PROMASEAL® Expansion Joint Strips are ideal for sealing movement joints at junctions between compartment walls and floors and within walls and floors. Their flexibility makes them suitable for use in a variety of configurations.

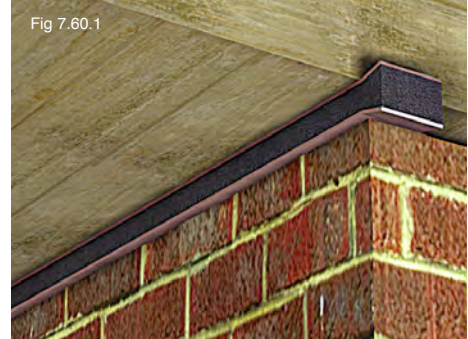
### FIRE PERFORMANCE

The fire performance of Promat PROMASEAL® Expansion Joint Strips will vary according to the particular application. In addition the width of the gap into which the Promat PROMASEAL® Expansion Joint Strips will be inserted as well as their orientation will have an effect on the level of protection provided.

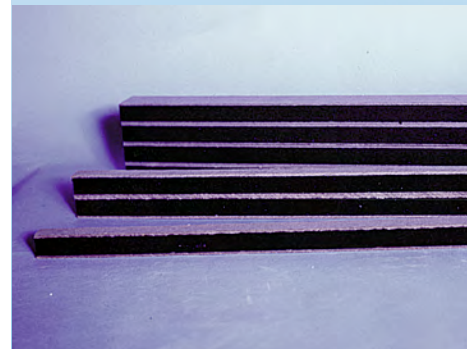
### ADVANTAGES

- Provides up to 240 minutes fire resistance (integrity)
- Allows joints to move
- Simple dry fixing
- Water resistant
- Discreet
- Workable 1 metre lengths
- Resistant to most chemicals

Fig 7.60.1



**Installation Method 1** – Sealing movement joints at junctions for walls and floors.



A safety data sheet is available from the Promat Technical Services Department and, as with any other materials, should be read before working with the product. The product is not classified as a dangerous substance and so no special provisions are required regarding the carriage and disposal of the product to landfill. This can be placed in an on-site skip with other general building waste which should be disposed of by a registered contractor.

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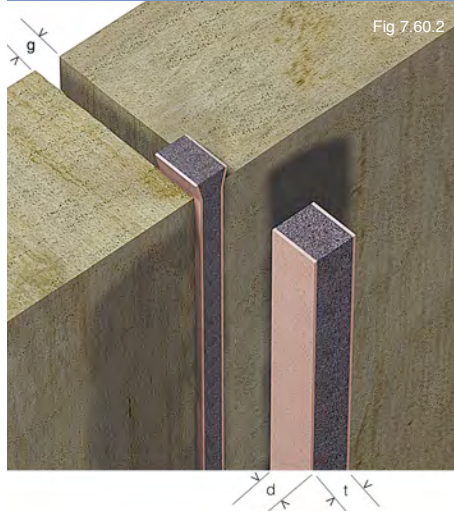
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#### INSTALLATION

The strip dimension is determined by the minimum and maximum positions of the joint width expected during the life of the building. The strip width (t) should not be less than the maximum expected joint width. The strip depth is a function of the joint width and the fire resistance period.

The appropriate size of Promat PROMASEAL® Expansion Joint Strip is simply compressed between fingers and thumb until it can be inserted into the required gap. For up to 120 minutes fire resistance only one strip is required. The strip must be centrally located in the wall or floor joint. In cold conditions it is advisable to store in a warm atmosphere immediately prior to installation as this improves compressibility. The strip may readily be cut to suit a particular length.

When more than one length of Promat PROMASEAL® Expansion Joint Strip is required in a joint, ensure the two pieces are butted tight together and there is no gap between the adjoining ends. At the ends of each joint, ensure the strip is fitted tight to the adjoining surface. For situations not covered by the table below, please consult the Promat Technical Services Department.



**Detail 1** – Sealing movement joints at junction for walls.

**Table 7k** Promat PROMASEAL® Expansion Joint Strip

Blockwork/Masonry/Concrete (aerated or normal) Wall and Floor Installations 150mm thick (min.)						
Product Name Promat PROMASEAL® Expansion Joint Strip						
Strip Size	Max. Joint width mm (g)	Min. Seal width mm (t)	Min. Seal Depth mm (d)	Number of Intumescent Strips	Number/Width of Foam Strips mm	Integrity (mins)
4009053	10	12	12	1	1 x 10	120
4009055	20	29	12	2	1 x 25	120
4009039	25	32	20	2	1 x 30	120
4009040	35	53	20	3	2 x 25	120
4009041	50	61	35	3	1 x 25 + 1 x 30	120
4009042	75	90	50	4	1 x 25 + 2 x 30	120
4009043	100	126	100	5	4 x 30	120
4009044	120	147	125	6	2 x 25 + 3 x 30	120
4009045	150	170	100	7	4 x 25 + 2 x 30	120
<b>Application Technique</b>			Compressed into gap/joint such that the multi-layers/banding are visible			

**NOTE:**

The block/masonry/concrete walls and floors shall be at least 150mm thick and have at least the same fire rating as that required for the penetration seal.

Block/masonry and concrete gap faces will be within the density range of 450 to 2300kg/m<sup>3</sup> and gap faces will be free from loose or flaking material.