

Intumescent Pillows

Temporary firestop solution for large voids in walls and floors

As part of the comprehensive FirePro® range of fire protection products, FirePro® Intumescent Pillows have been tested to BS 476 Part 20 to provide up to 4 hours fire protection to metal services and cables passing through fire resisting compartment floors and walls.

Advantages

- Simple to install
- Maintenance free
- Dry system
- Easy to remove and reinstate whilst changing services

Description

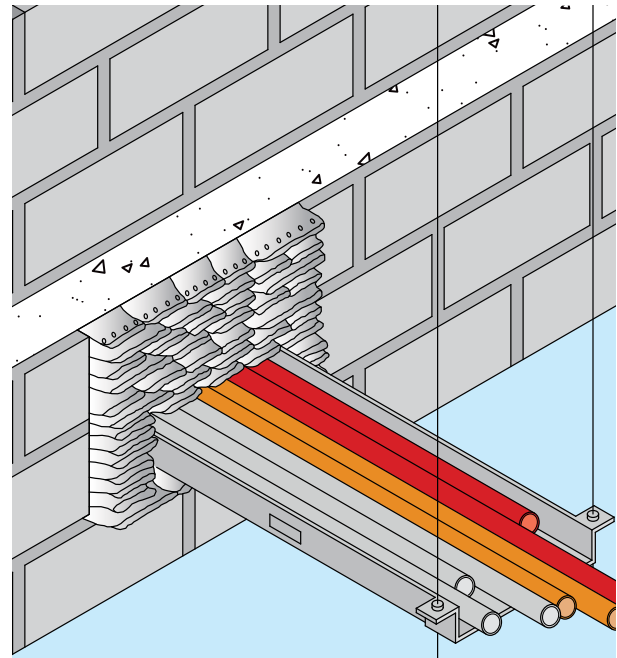
FirePro® Intumescent Pillows are simply packed tightly in between penetrating services and the wall. In a floor, pillows are additionally supported by means of a mesh support system.

Specification

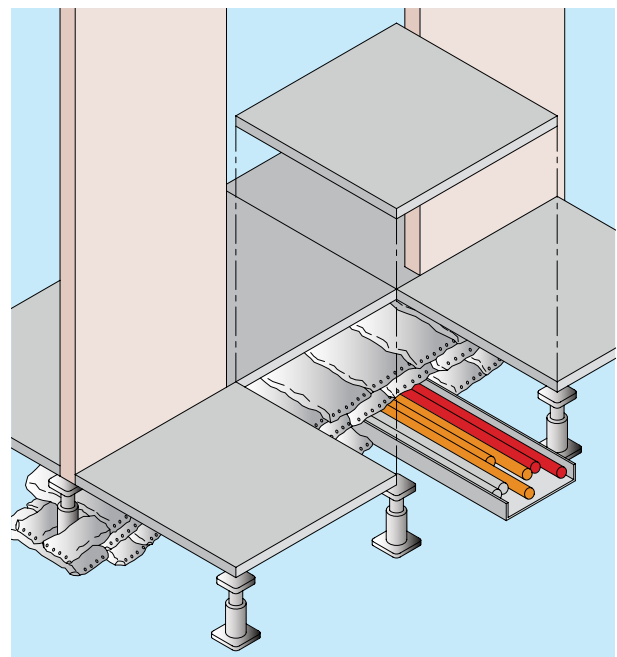
install FirePro® Intumescent Pillows to provide up to 4 hours rating where services pass through fire rated walls and floors. Installation to be fully in accordance with manufacturer's instructions.

Estimating quantities

Pillow size (mm)	Approximate number
300 x 200 x 30	165 per m ² opening
300 x 150 x 30	220 per m ² opening
300 x 100 x 30	330 per m ² opening
300 x 50 x 30	660 per m ² opening



FirePro® Intumescent Pillows friction fitted between services and firewall



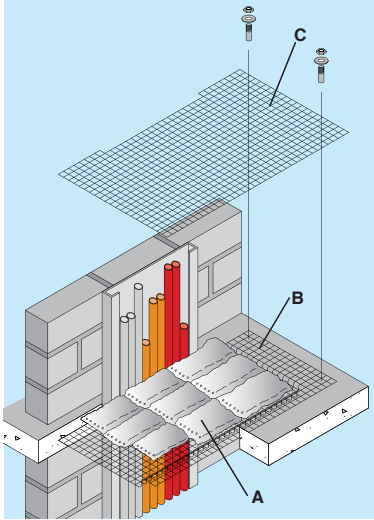
FirePro® Intumescent Pillows forming cavity barrier underneath raised access floor

Performance & properties

Under fire conditions, FirePro® Intumescent Pillows expand several times their original volume to form an effective seal around service penetrations.

FirePro® Intumescent Pillows are suitable for use with:

- Metal pipework
- Cable trays
- Electrical trunking (inside and outside)



FirePro® Intumescent Pillows supported by mesh cage in service riser floor

Labels

A = FirePro® Intumescent Pillows

B = Basket of galvanised steel wire mesh 50mm x 50mm squares, wire diameter 2.5mm mesh basket mechanically fixed to floor slab

C = Wire mesh as above, overlapping basket mesh and tied together with steel wire

Performance in masonry supporting walls

Method of support /Installation	Maximum aperture dimensions	Fire resistance (min)	
		Integrity	Insulation
Friction fitted	850 x 850mm	120	120
Friction fitted	600 x 600mm	240	120

Minimum density of masonry supported walls – 650kg/m³ 300mm bag length to be laid horizontally in wall void. Bags should be laid centrally within wall thickness.

Performance in masonry supporting walls

Method of support /Installation	Maximum aperture dimensions	Fire resistance (min)	
		Integrity	Insulation
Friction fitted	850 x 850mm	120*	120*

* Product performance is dependent on matching performance of plasterboard wall system. Void in plasterboard should be fully 'framed out' with steel studs or similar 300mm bag length to be laid horizontally in wall void. Bags should be laid centrally within wall thickness.

Performance in concrete floors

Method of support /Installation	Maximum aperture dimensions	Fire resistance (min)	
		Integrity	Insulation
Wire basket	850 x 850mm	120	120
Wire basket	600 x 600mm	240	120

300mm bag length to be laid vertically in floor void.

Approved service penetrations: Steel and copper pipes not exceeding 100mm OD. Multi-core power cables not exceeding 25mm diameter. Multi-core signal PVC sheathed cables not exceeding 11mm diameter. CAT5 or CAT5E communication cables not exceeding 6mm diameter. Fibre optic cables not exceeding 6mm diameter. Perforated steel cable trays carrying single cables (as above) or bunched in bundles, no more than 50mm overall diameter with each bundle separated by at least 40mm. Steel trunking not exceeding 150 x 150mm (through floor seals only) containing single cables (as above) or bunched in bundles, no more than 50mm overall diameter with each bundle separated by at least 40mm. Remaining void within trunking should be fully sealed with Intumescent Pillows.

General notes

All penetrating services should be at least 100mm apart and located within the pillows at least 50mm from the surrounding aperture. Due to the nature of the penetrating service eg. steel or copper pipes, the fire insulation performance may be reduced. All penetrating services should be independently supported within 1m of the pillows. For cables supported on trays passing through floor seals, the independent supports should be fixed to the trays and the cables clamped securely to the trays. Plastic conduits or trunking should be cut short by at least 100mm either side of pillow seal.

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Installation in floors

- 1 Make a basket using galvanised steel mesh (50 x 50mm squares x 2.5mm wire diameter) to sit into the hole in the floor slab. There should be a minimum 50mm overlap onto the surrounding floor slab or wall. Mechanically fix to top of floor slab or wall.
- 2 Lay FirePro® Intumescent Pillows standing on end into the wire basket. Pack the pillows tightly into the basket around the penetrating services.
- 3 For electrical trunking, remove the lid and install a pillow inside so that it aligns with the depth of the floor. Replace the lid on the electrical trunking.
- 4 Lay a sheet of the galvanised steel mesh over the basket and tie together using steel wire.

Installation in walls

- 1 Push the first pillow into the hole to be filled, so that the longest dimension (300mm long) spans across the wall.
- 2 For electrical trunking, remove the lid and install a pillow inside so it aligns with the depth of the wall. Replace the lid on the electrical trunking.
- 3 Pack the hole tightly with additional FirePro® Intumescent Pillows until it is full.

For plasterboard partitions, the hole must be framed out using suitable stud noggins prior to installing the FirePro® Intumescent Pillows.

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