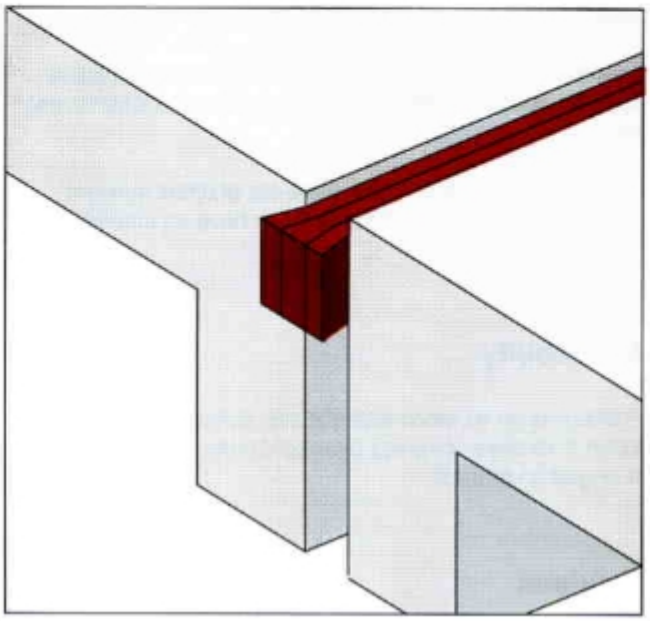
WILLIAM JOHNSTON
& COMPANY LIMITED

INTUMESCENT FIREFOAM



Firefoam floor slab joint.

Efficient, cost-effective and simple to use

Two years of design and development, field evaluation and independant testing went into the making of this unique dry-foam fire-resisting joint filler.

Sealmaster Intumescent Firefoam is an 18mm thick fire retardant open-cell polyurethane flexible foam, coated on both sides with a 2mm thick expandable graphite intumescent sealant, containing special binders which maintain complete flexibility. At the designated temperature, the intumescent coating begins to expand on the fire side of the joint. During this reaction, the fire resistant foam gradually degrades and is replaced by the expanding mass of intumescent graphite. Thus fire is prevented from penetrating rapidly into the joint.

Firefoam provides the easiest method of gap filling. Installation is simple because Firefoam is pre-formed and no sticking or fixing is needed on site. Because Firefoam is moisture resistant, no protective sleeve is necessary.

Firefoam is a more effective fire seal than its competitors. Less material is required, so costs are kept to a minimum. Add to that the reduced cost achieved by simple, quick installation, and Firefoam is the most cost-effective fire-resistant gap filling system on the market.

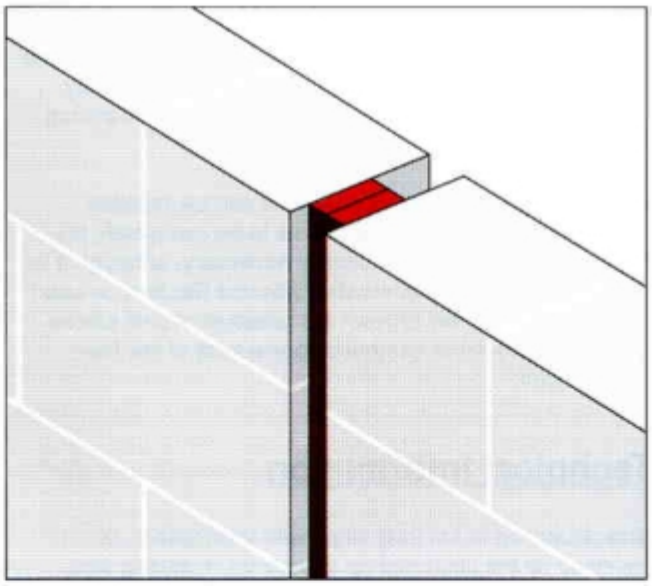
The flexible open cell structure of Firefoam allows for more than to 50% compression, and can be formed into any shape or angle. Firefoam guarantees a uniform seal, something not met when using gun grade materials where voids may occur.

Use

Because Firefoam is compressible, it can accommodate vibration or movement, and so can be used as a filler for movement joints. This product is suitable for interior or exterior projects.

Fire foam is recommended for use in structural joints and around service penetrations through fire resisting walls and floors, in noise sensitive environments and in thermal applications; for example:

- filling fire rated expansion joints in fairface brick and blockwork walls;
- filling expansion joints incorporated in compartment floors;
- filling gaps in curtain walling adjoining compartment walls, floors and roofs;
- sealing around pipework, ductwork and cable trays passing through fire resisting walls and floors.



Firefoam vertical joint.

How to specify

The table overleaf shows the straightforward way to fire-stop joints with Sealmaster Firefoam. To identify the depth of Firefoam required for any application, cross reference the width of the joint with the integrity to be maintained. For example: if the requirement is a 20mm joint with a two hour fire rating, specify Sealmaster Firefoam 20mm joint x 2 hours. A minimum compression of 15% per thickness of material has been allowed to cater for ambient temperature changes.

The table represents the worst case scenarios. Where depth of fill is in excess of customer requirements (i.e. 30mm in the above example), our experts will be pleased

to advise on the precise volume needed in specific instances.

Firefoam strips are supplied pre-laminated to the required thickness and are cut to the desired width at no extra cost. There is minimum risk of error in specification interpretation, because the product is delivered in clearly marked cartons.

Performance of Firefoam in any structural substrate

	Fire resistance				
	1hr	1½ hrs	2hrs	3hrs	4hrs
Gap width	Depth of Firefoam fill required				
10	25	25	25	35	40
20	25	25	30	40	50
30	25	25	30	40	50
40	30	30	35	45	55
50	35	35	45	60	75
60	35	35	45	65	90
70	40	40	50	75	105
80	40	40	50	85	105
90	45	45	55	85	105
100	50	50	60	85	105

Linear dimensions in mm

Fitting Instructions

Firefoam is installed by compressing the pre-cut strips by hand, and inserting them around the penetration or into the joint until the void is filled. The foam is held in place by means of its own compression, and so adhesives are not required.

Firefoam is resistant to moisture and can be installed without waiting for contact surfaces to be completely dry. Special preparation is not usually necessary, although it is recommended that **Sealmaster Silicone Sealant** be used to overseal. This will prevent the passage of cold smoke and will enhance the aesthetic appearance of the fire-proofed joint.

Technical Information

Size: Supplied in 1m long strips with thicknesses as specified by the customer up to the maximum gap size, and with depths up to 105mm.

Colour: Black.

Gap size: Suitable for gap sizes up to 100mm.

Compressibility: Approximately 9.6 KN/m² for 40% compression.

Fire resistant rating: Independant fire resistance tests to BS 476 have proved Firefoam's integrity in a variety of situations for periods up to four hours. Report data is available on request.

Expansion on exposure to fire: A 22mm thickness of Firefoam will expand to 50 - 55mm.

Durability: Firefoam is extremely durable, and is able to withstand the rigours of the building site. Tests show that many years after installation, Firefoam will still be ready to activate in a crisis.

Moisture resistance: Firefoam is unaffected by atmospheric carbon dioxide or moisture. Even after undergoing total submersion in water, and then being subjected to freezing conditions, Firefoam activates reliably at the designated temperature.

Other properties: Firefoam has excellent thermal and acoustic insulation properties.

Safety: Firefoam is odourless, non-toxic and is asbestos free. No special protective clothing is required when installing.

Storage: Store in a cool dry place out of direct sunlight. Under these conditions, Firefoam will have an unlimited storage life.

Availability

Firefoam is an ex-stock material with delivery normally within 7-10 days. Express overnight delivery can also be arranged on request.

Services

Sealmaster provide initial design services with technical support at all stages of work from planning through to site installation, without obligation.

Installation

Sealmaster can take on the total package responsibility of supply and installation using in-house expertise or approved specialist sub-contractors.

Further Information

Further information is available from our technical support.
Please contact William Johnston & Company Limted.
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