



Firestop Mortar

Fire Resistant Seals for Walls and Floor Openings





Why use Signum Firestop Systems?

SIGNUM FIRE SEAL MORTAR BARRIERS offer great flexibility for installation in a variety of locations and conditions such as openings in walls, floors, roofs etc. through which cable trays, conduits, power, control and communication cables, grounding bars etc. pass through. It can also be used to seal openings with other penetrating service items such as ducts for heating, ventilating, air conditioning or exhaust ducts, pipes etc.

SIGNUM FIRE SEAL SYSTEMS efficiently seal these openings through walls, floors, under control panels, trenches, pipe sleeves, cable vaults etc. to provide up to 240 minute fire resistance.

SIGNUM has two systems, each suitable for a variety of applications - PSB1, which is a high density, cement-based, single component material and FSC200, which is a lightweight, cement-based, two-component material. The formless nature of both mixes allows them to be easily installed between cable bunches and other penetrating systems, creating a complete void-free seal.

Even after fully curing, both systems allow addition or replacement of penetrating systems within the opening without the need to replace the complete opening.

Performance Specifications

Signum Firestop Mortar systems have been tested for compliance with many national and internationally approved standards

IS 12458: Fire Resistance Test of Firestops

BS 470 (Part 20): Fire tests on building materials and structures

ASTM E:814: Standard Test Method for Fire Tests of Through-Penetration Fire Stops

UL 1479: Standard for Fire Tests of Penetration Firestops

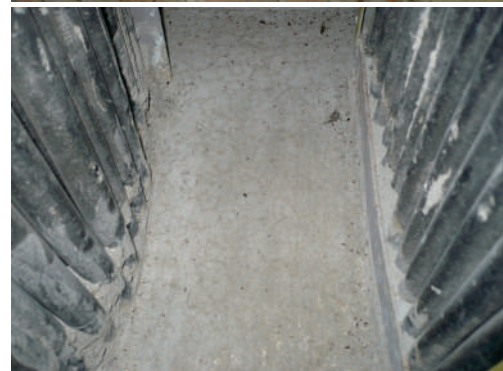
Quality Assurance

Signum is certified for its quality systems according to **ISO 9001:2015** standards by TUV India Pvt. Ltd., a member of internationally known TUV NORD GROUP.

Quality Assurance Plan (QAP) and Manufacturer's Certificate of Conformity/ Test Certificate (MTC) for Signum Firestop Mortar Systems is available upon request.

Features

- *Water-based, Eco-friendly certified by the Indian Green Building Council*
- *Asbestos-free, toxic-free*
- *Non-Shrinking*
- *Flexible to install and more versatile*
- *Easily applied by pouring or troweling*
- *Can be used in horizontal and vertical applications*
- *Easy retrofitting/ of additional penetration systems - cables/ pipes etc. and easy repair*
- *Water resistant & Weather proof - Can be used outdoors/ in varying environmental conditions with no loss on effectiveness*
- *Resistant to chemicals, oils/ lubricants and corrosive gases*
- *Compatible with most construction materials*
- *Paintable*
- *Permanent in nature*
- *Maintenance free*



Top: SIGNUM Firestop Mortar sealing a duct through a (vertical) wall opening
Bottom: SIGNUM Firestop Mortar sealing cable trays through a (horizontal) floor opening

Technical Characteristics

Trade Name	PSB1	FSC200
Colour	Grey	
Visual Characteristics	Fine powder	
Dry Bulk Density	~900-1000 Kg/m ³	~650 Kg/m ³
Cured Density	> 1000 Kg/m ³	~720 Kg/m ³
Toxicity	Non - toxic	
Combustibility	Non - combustible	
Compressive Strength	> 9 N/mm ²	> 0.5 N/mm ²
pH Value	≥7	
Fire Resistance	60, 120, 180 & 240 minutes	
Compound	Single component, pre-mix	Two component, to be mixed in equal ratio
Oil Resistance	Excellent	
Thermal Conductivity	Poor	
Resistance to water	Excellent	
Resistance to ageing	Excellent	
Recommended Thickness as per Fire Test	75 mm* for 60 minute fire rating 120 mm* for 120 minute fire rating 175 mm* for 180 minute fire rating 270 mm* for 240 minute fire rating	75 mm* for 60 minute fire rating 100 mm* for 120 minute fire rating 150 mm* for 180 minute fire rating 200 mm* for 240 minute fire rating
Coverage	75-83 Kg/m ² * for 60 minute fire rating 120-132 Kg/m ² * for 120 minute fire rating 175-193 Kg/m ² * for 180 minute fire rating 268-295 Kg/m ² * for 240 minute fire rating	60 Kg/m ² * for 60 minute fire rating 80 Kg/m ² * for 120 minute fire rating 120 Kg/m ² * for 180 minute fire rating 180 Kg/m ² * for 240 minute fire rating
Drying Time	To touch within 6 hours, hard dry 3-4 days	To touch within 12 hours, hard dry 6-7 days
Packaging	30 Kg bags	30 Kg bags for each component A & B
Shelf life	18 months in unopened packaging, stored in cool, dry place	
Storage temperature	4 °C to 45 °C	
Application	Mix 3 parts PSB1 with 1 part water Mix 3 parts FSC200-A and 3 Parts FSC200-B with 2 parts water The powder should always be added to water to ensure complete wetting. Mix/ stir in container to achieve uniform consistency and avoid lumping of material. Apply to the opening area using trowel. Add water further, to make the required consistency for pouring, or as per site conditions. For vertical applications (wall openings) a stiffer mix consistency should be used. Appropriate shuttering should be used when working with floor/ wall openings. In case of large openings (greater than 600 mm), additional reinforcement bars may be necessary depending on site conditions. Please contact us for any clarifications.	
Recommended Use	Heavy-duty, industrial applications, power plants, nuclear plants, steel plants. etc.	Commercial applications, office buildings, residences etc.
	*Subject to standard tolerances	

Certifications & Approvals

Signum Firestop Mortar systems have been tested and certified by several internationally accredited third-party organizations approved to conduct such tests under Government of India authority in India

CBRI: Central Building Research Institute, Rourkee

CPRI: Central Power Research Institute - Thermal Research Center, Koradi

NPCIL: Nuclear Power Corporation of India

NABL: National Accreditation Board for Testing & Calibration Laboratories

GREENPRO: Indian Green Building Council (IGBC) Certified

Approved Type Test Certificates for all performance standards are provided with all projects executed.

We have our own in-house NABL Approved Fire Testing Laboratory constructed as per International Standards for new R&D activities.

Recommended Application Areas

Residences, Commercial Spaces, IT Parks
Hospitals, Hotels
Multiplexes, Banks, Department Stores
Airports, Metro Railway Stations
Thermal, Nuclear, Hydro Power Projects
Govt. buildings - Embassies, Administrative offices
Military Installations - Hangars, Shipyards, Administrative offices
Industries - Cement factories, Godowns, other factories
Steel Plants, Coal Mines, Paper & Saw Mills, Petrochemical Plants, Explosive Manufacturing units

Other Products by Signum

Fire Retardant Cable Coatings
Steel & Timber Flush Doors
Timber Carved Designer Series Doors
Steel & Timber Fire Doors
Steel & Timber Acoustic Doors - General and Fire Rated
Metal Sliding Doors - General and Fire Rated
Rolling Metal Shutters - General and Fire Rated
Architectural Partitions



SIGNUM

TURNKEY PASSIVE FIRE PROTECTION SYSTEMS

Manufactured by: -

Signum Fire Protection India Pvt. Ltd.

TURNKEY PASSIVE FIRE PROTECTION SOLUTIONS

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