

Product Data Sheet



Dept of Industries
& Commerce, Haryana

Tested & Certified to meet
UL 1479
IS : 12458

FIREX FM 71

Upto 4 Hour Rated Fire Stop Mortar

Description

Firex FM 71 Mortar is a fire rated load bearing system providing up to 4 hours fire protection to compartment walls and floors around cable & service penetrations. Is designed to maintain their fire resistance.

Firex FM 71 Fire Rated mortar is pre – mixed dry blend, consisting of inorganic fillers and foamed perlite. When mixed with water it produces a trowelable or pourable grade, non-spalling, thermally insulating fire seal. Whilst curing, the mortar expands by approximately 1 % ensuring a tight seal around penetrations and within the opening. Once installed Firex FM 71 Fire Rated Mortar sets within approximately 30 minutes allowing works to be completed without the need to re-visit the site.



Fire Rated Mortar Features:

- 4 hour rating /200mm (2 hour rating /100mm) firestop barrier.
- Non Combustible.
- Thermal Stable > 1000°C. Excellent thermal shock resistance – The properties remain unaltered in extreme temperatures.
- Low Shrinkage. Expands slightly during cure
- High compressive strength. Suitable for large or small irregular openings
- Easy to use
- Simple to retro-fit additional services
- Does not spall
- Water resistant (for prolonged water immersion overcoat with CIC 4767 - 2-4 coats)
- Light weight
- Asbestos free
- Completely resistant to moisture, humidity and chemicals. It remains unaffected by oil /lubrication spillage and is resistant to corrosive gases in the atmosphere.
- Modifiable with retrofit design facility, where cables can be easily inserted or replaced without impairing its fire performance.

Product Data Sheet



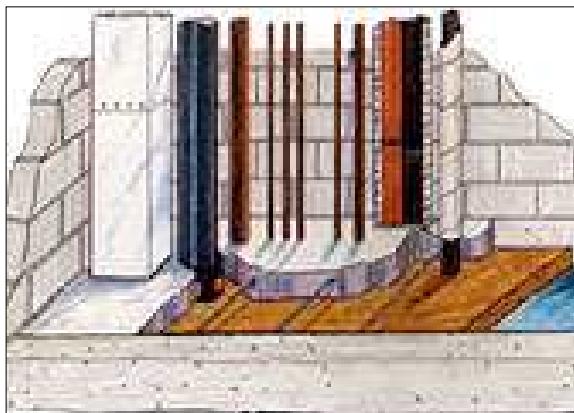
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- All its constituents are odourless, non hazardous and non toxic.
- Does not contain any volatile solvents, is non-combustible and free from fire hazards during application.
- Excellent impact resistance properties to protect it against impact /foot traffic loads.
- Does not affect current carrying capacity of the cables.
- Resistant to termite and is anti-rodent.



Firex FM 71 Mortar is a fire rated load bearing system providing up to 4 hours fire protection to compartment walls and floors around service penetrations.



When mixed with water it can be poured or trowelled into service penetration openings preventing the passage of flame, smoke and toxic gases for periods of up to 4 hours.

Shutter (plywood or dense mineral wool board).

Secondary reinforcement where necessary.

Thickness dependent upon fire resistance and load bearing capability.

Installation

Horizontal Seals (load bearing in concrete floors)

Form a temporary (or permanent) shutter to the underside of the floor.

The correct amount of **Firex FM 71** Mortar is then mixed by hand or power mixer and cast into the aperture.

This is then tamped down to consolidate to minimum thickness of (100 mm) deep, also ensuring that there are no gaps left behind penetrations.

If a temporary shuttering has been used, this is then removed

Product Data Sheet

Vertical Seals

Form a temporary (or permanent) shutter to one face of the aperture

The correct amount of **Firex FM 71** Mortar is then mixed by hand or power mixer

The remaining face of shuttering will be installed in stages. This will allow the compound to be poured or plastered into place and enable tamping/consolidation of the material

The curing time of the compound may vary between 25 minutes to 1 hour depending on the water content and ambient temperature



If temporary shuttering has been used this is removed when compound is dry

Note: For plastic pipe penetrations, see horizontal seals

Applications

In addition to forming a 4 hour /2 hour rated, firestop barrier, Firex FM 71 Fire Rated Mortar is particularly suitable for reinstating compartment wall & floors where HVAC ducts, plastic pipes, and electrical services have been installed. Small irregular holes and imperfections of fit can easily be repaired using Firex FM 71 Fire Rated Mortar.

Technical Specifications

Physical State Free flowing powder

Nominal Dry density 1000 K.G / m3 ($\pm 5\%$)

Flash Point N/A

Thermal Conductivity 0.06 W/M K.

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To Meet

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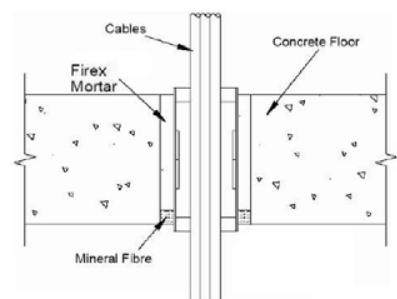
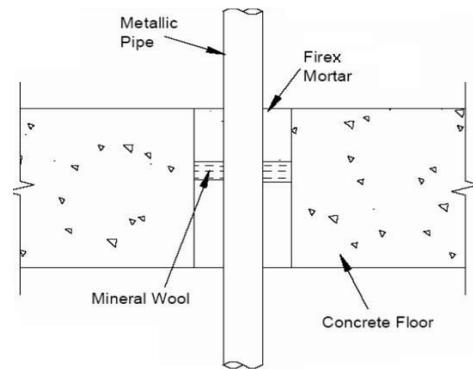


Installation Methods

1. Ensure all service penetrations are complete and installed to the manufacturers recommendations
2. Remove dust and debris by brushing out the opening and surrounding area
3. Friction fit 2" thick mineral fiber batt shutter within the thickness of the floor. To ensure a good seal, Firex FM 71 Intumescent Acrylic Mastic can be applied to all joints in the mineral fiber. A temporary timber shutter can be used in place of the permanent mineral fiber, but this should be removed once the seal is cured.
4. Pour clean potable water into a suitable mixing vessel and add sufficient dry Firex FM 71 Mortar to achieve the required consistency, stirring the slurry to remove all lumps.

IMPORTANT: ALWAYS ADD THE DRY POWDER TO THE WATER

5. Pour or trowel apply the mix onto the mineral fiber shutter, and build up to the required thickness with further applications (if required)
6. Firex FM 71 Mortar normally sets within approximately 30 mins (dependent on environmental conditions). To achieve a full cure can take up to approx. 28 days.
7. Consumption: Approx 2000 kgs /cubic meter. Minimum required for upto 4 hour rating 200mm thickness /1Sq mtr – 200 Kgs (2 hour rating /100 mm thickness – 100 kgs per sq mtr.
8. Immersion in water: overcoat with CIC 4767 (2-4 coats) for added protection.



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