



BARRIER AGAINST FIRE



FIRE BARRIERS
FIRE RATED SEALANT
FIRE RATED MORTAR
FIRE SEALING SYSTEMS
FIRE RETARDANT CABLE COATING

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A firefighter in full protective gear, including a helmet and oxygen tank, is silhouetted against a intense fire. The firefighter is spraying a powerful stream of water from a hose onto the flames. The background is filled with bright orange and yellow fire, with smoke and sparks visible.

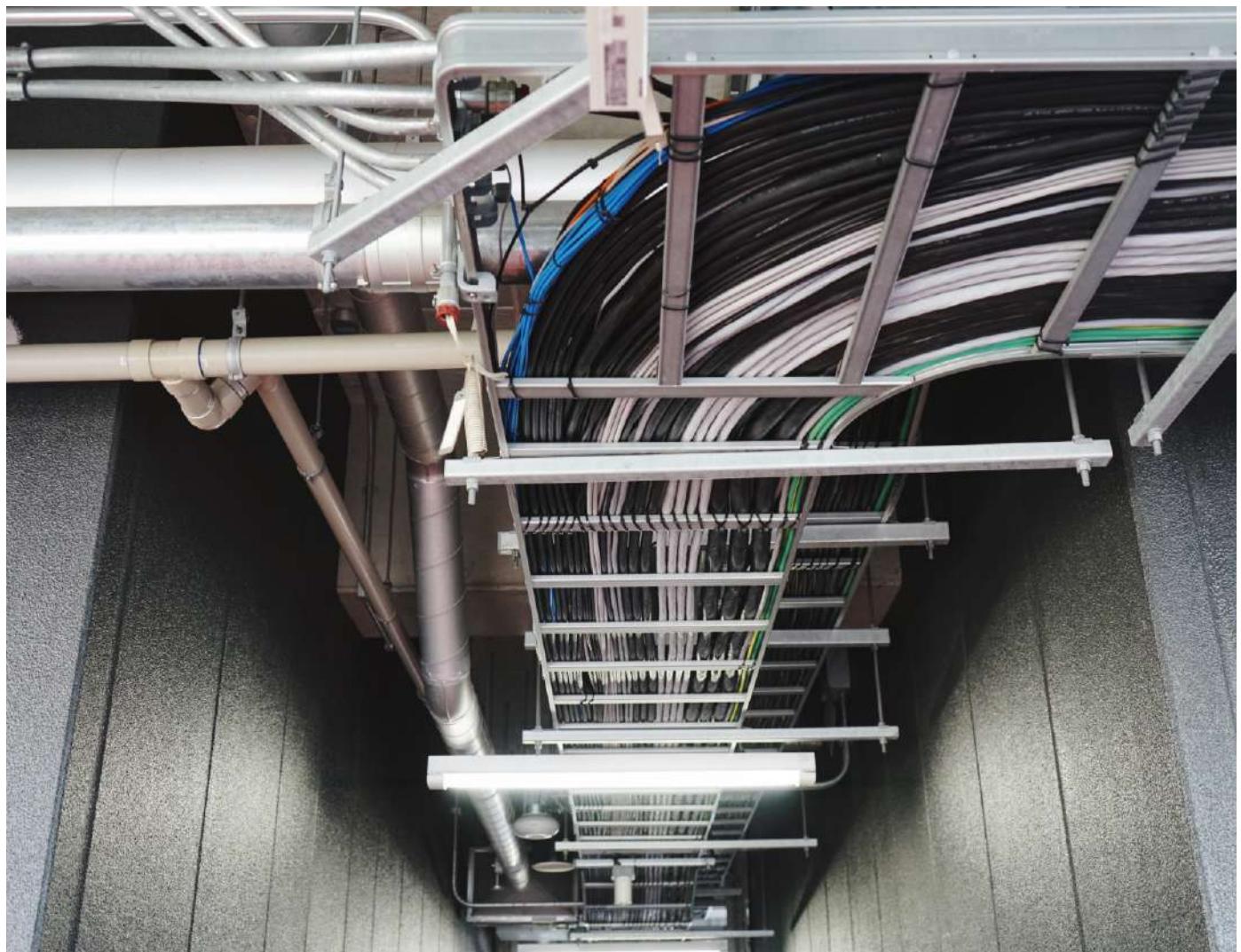
A STEP AHEAD TO
**PASSIVE FIRE
SOLUTIONS**

About AEFS

MOST TRUSTED NAME IN PASSIVE FIRE PROTECTION

Fire is the most common reason for the massive disasters across the globe. Within the Indian mythology also the Fire is termed as " **सर्व अक्ष** " which means Fire may destroy anything & everything that may come across its way. In line to minimize the losses & secure the life within any fire incident, it is very important that any construction should be well equipped and secured using adequate **Passive Fire Protection System**.

We are one of the India's leading manufacturer of **Passive Fire Protection Products** since 2011. Within this journey we have been improving ourselves and been developing various products within our own State-of-Art manufacturing unit. These products have robust performance experience as per various National & International standards.



VISION

#SAFER WORLD

Our vision is to reach across the globe through our Fire Protection materials. We look forward to provide safety to the precious lives & properties across all the 195 nations. We are committed to keep developing world class range of Fire Safety Solutions at an affordable range so that, above standards & specifications, the fire safety becomes a routine practice for every individual.

MISSION

We are on our way to develop and manufacture sustainable and high-performance based Fire Safety Solutions. But its not a solo trip so we are making our family big & bigger by getting associated with Channel partners, distributors, marketing professionals, Fire Safety enthusiasts from different parts of the globe. By offering excellent quality products, professional services, in-time deliveries and ensuring the complete satisfaction to our esteemed clients.

CORE VALUES

Our value system not just makes us what we are, but it drives us to complete our missions and to achieve our vision.



Having a professional approach within all the actions performed.



Honor your words and never deviate from your commitment.



Never compromise in quality & performance.
Precision & Excellence are wings towards success.



To strengthen ourselves by empowering our associates, provide best solutions to our associates and create a lifelong relationship with all our suppliers, channel partners, distributors, financers, customers & employees.



Everyday is not same so hold your nerves and stand strong, don't lose hope, confidence and never compromise with your values because *"Every night has a strong hope of an up coming bright morning"*.



Why AEFS ?

We at Asharam Engineering & Firestop System Pvt. Ltd., are very strongly focused & committed towards zero tolerance policy towards quality of our materials. We are focussed to provide excellent quality materials within affordable range and sustainable performance. We assure 100% satisfaction to our customers rather it may be service, quality, professional behaviour, business ethics or honouring our commitment. In our journey we have always been appreciated by our valued clients over our commitment values, business ethics and consistent support at each situation.

We have strict quality controls and in-house testing facilities for regular manufacturing & quality controls. Along with the same we use to carry various tests to analyse & evaluate the performance and limitations of our products, as per various National & International standards within different laboratories like FM Global USA, Central Building Research Institute INDIA, Electrical Research & Development Association INDIA & other renowned Labs accredited and approved by the International Laboratory Accreditation Cooperation and also from the National Accreditation Board for Testing and Calibration Laboratories in INDIA. Our range of products have been tested & approved as per the following tests standards:

INDIAN STANDARDS:

- IS: 10810 (Part – 53) – 1984
- IS: 7098 (P-1) – 1998
- IS: 5831 – 1984
- NCD 1409

AMERICAN STANDARDS:

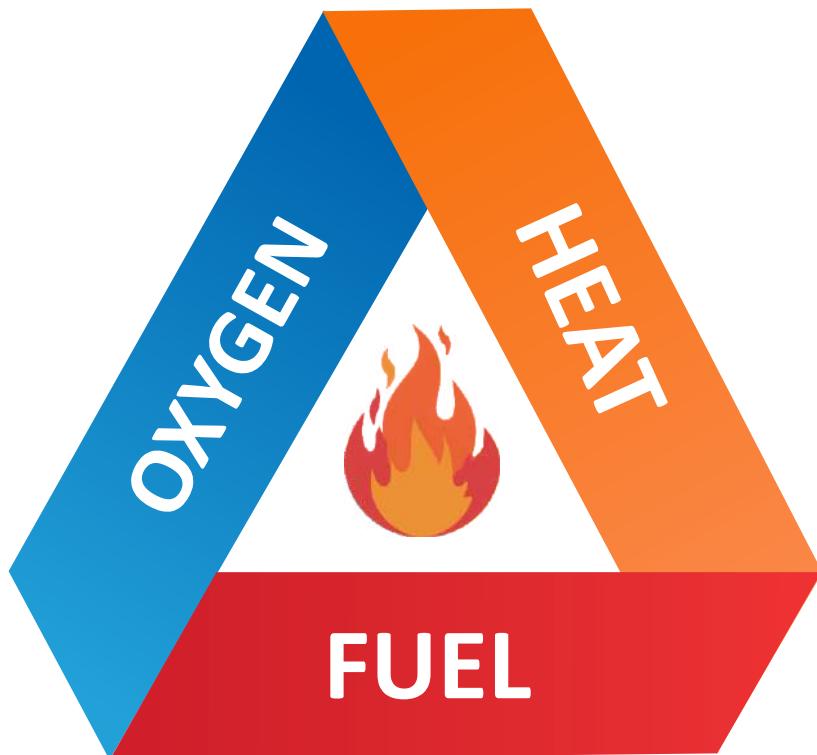
- FM 3971
- ASTM E 814
- UL: 1479
- ASTM D 2863
- ASTM D 2369 - 20
- ASTM D 2843
- ASTM B 117 - 2016
- ASTM D 7072 – 04
- ASTM D 870 – 15
- SCAQMD 1113

BRITISH, EUROPEAN & OTHER STANDARDS:

- BS: 476 Part – 20
- IEEE: 383 – 1974
- IEC 60332-3-21: CAT-A F/R
- IEC 60332-3-23: CAT-B
- IEC 60332-1-2 : (2004)
- IEC 60331-21: 1999
- IEC 62321 – 5 : 2013
- IEC 62321 – 4 : 2013
- IEC 62321 – 7 – 2 : 2017
- IEC 60754 – 2
- NES – 713
- European Directive 2011/65/EU
Annex II (RoHS); recasting 2002/95/EC
- JIS D 0205
- ISO 105B-02 : 1994

FIRE, SAFETY & PRECAUTIONS





1. DETAILS ABOUT THE FIRE SAFETY & PASSIVE FIRE PROTECTION:

Fire hazards are basically result of an unwanted, unwitnessed & unexpected combination of the three compositions as mentioned above, within the Fire Triangle. The fire cannot exist unless this trio is completed. So, the basic idea of Passive Fire Protection System works around the concept of restriction of oxygen so that the combination of spark, burning material and oxygen remain incomplete, the fire incident may not happen.

2. TWO MAJOR TYPES OF FIRE PROTECTION SYSTEMS:

1

Active Fire Solutions:

which includes : sprinkler systems, smoke detectors, fire alarms, rescue teams, fire hydrant systems, etc.

2

Passive Fire Solutions:

which includes Cable Coating Compounds, Fire Penetration Sealings, Fire Rated Coatings for Metals/Wooden/Wall, Fire Doors etc.



KEY FEATURES OF PASSIVE FIRE SOLUTIONS OFFERED BY AEFS:-

- Does not require any activation or automation.
- Does not require any periodic maintenance (100% maintenance free).
- Very long life almost equal to the life of parent equipment.
- Designed solutions as per customized requirements.
- Majorly focused to safeguard the primary equipment so that the loss could be minimized in a fire incident.
- By limiting and controlling fire within a specific area, provides great support and backup time to fire rescue team & active fire systems.





ELECTRICAL FIRE SAFETY

WHY ELECTRICAL AREAS OF AN INDUSTRY ARE CONSIDERED TO BE FIRE HAZARD?

- Regular & Huge flow of Current – natural source of Heat, Spark & Ignition.
- PVC Coated Cables, Wires, Pipes – availability of bulk quantities of burning materials.
- Having lots of openings – encourages rigorous spread of fire.
- Less visited – delayed reporting of fire breaks.
- Challenging areas for fire rescue teams, because:-

Generally, they have restricted approach burning of PVC generates hazardous smoke limitations in using of water against the fire incident Closed areas so limited visibility in case of fire & power cuts.

IMPORTANCE OF ELECTRICAL FIRE SAFETY

Electricity is life line for any Industry, Construction Activities, Residential & Commercial Buildings, Schools, Colleges, Hospitals, Hotels, etc. To accomplish any major activity electricity is must. And along with electrical equipment there comes a responsibility to ensure the safety of life & property of and also by those electrical equipment.

As per the reports of fire experts across the globe, one of the most commonly reported reason for fire accidents is electrical short circuits, which creates a significant damage to the precious lives of people too.

PASSIVE FIRE SAFETY SOLUTIONS FOR ELECTRICAL AREAS

Basically, there are three most important steps to ensure the Fire safety of electrical areas using **Passive Fire Solutions:**

1

Convert the good conductor of Fire to the bad one : (Safeguarding of Electrical Cables)

PVC cables are major carrier of fire within the electrical areas as they are good burning materials and carry current flow which can develop spark at any point, so these cables in all forms i.e. vertical runs, horizontal runs, bunched & individual cables, with or without a cable tray should be coated with Firestop® Fire Retardant Cable Coating Compound.

2

Segmentation of rooms / areas:

(i) All the Penetration openings within floors , walls & ceilings, having combustible runs must be sealed, between various rooms, entry & exit points of building / floor, T-points, Cross Junctions, etc., using Firestop® Sealing materials.

3

Provide Safety to major Equipment:

It is very important to ensure the fire safety of the critical & Hazardous equipment of electrical areas against fire, like Batteries, Transformers, Electrical Panels, DG Sets, Switchboards, Control & Instrument Panels, Principal electrical equipment, etc.



A construction worker wearing a white hard hat, a plaid shirt, and grey overalls is applying a firestop material to a wall. He is holding a white bucket of 'Asharam Firestop' material in his left hand and a trowel in his right hand. The wall is light-colored and appears to be made of drywall or plaster. The background shows a construction site with exposed ceiling joists and a window. The word 'PRODUCTS' is overlaid in large white letters on a dark blue background at the bottom of the image. The 'Firestop' logo is also present at the bottom right.

PRODUCTS

Firestop[®]



FIRESTOP® AK-312 -

FIRE RETARDANT CABLE COATING COMPOUND

Firestop® AK-312 is a Water Based, Non-Toxic, Asbestos Free, UV resistant Cable Coating Compound which can be applied over single and group formed industrial cables like: PVC Armed Cables, LT & HT Power Cables, Communication Cables, Data Cables, PVC Ducts, Pipes, etc., for restriction of spread fire through cables.

The product has been tested and approved by various Laboratories as per different National & International Standards, some of them are :-

- FM – 3971 (FM Global, USA)
- IEC: 60332-3 Flammability Test
- ASTM D 2863-2013 for Limited Oxygen Index Test.
- Toxicity - RoHS Test as per ED- 2011/65/EU Annex II
- IEEE: 383 & IEEE: 1202 - Flammability Test
- Meets LEED® VOC Requirements
- Gamma Radiation Test

Kindly refer detailed Technical Data Sheet for more details



Key Features:

- Ablative Type Fire Retardant Cable Coating Compound.
- Resists flame spread along single & grouped vertical or horizontal cables.
- Material is not affected by nuclear radiation and is mechanically tough.
- Has a very long life, equivalent to the life of parent equipment.
- No Ampacity Reduction (No Cable Derating).
- Flexible and Durable
- Asbestos Free
- Water and Weather Resistant
- UV Resistant
- Non-toxic, non-irritant, has high limiting oxygen index
- Odourless
- Suitable for Indoor & Outdoor applications

Tested up to the Fire Resistance Rating - 03 hours



HIGHLY CERTIFIED PRODUCTS



FIRESTOP® AK-315

FIRE RATED SEALANT

Firestop® AK - 315 is a water based, non-toxic fire rated Sealant which is multi-purpose and can be used to seal gaps within cable ducts, fire barriers, fire rated walls, joints, gaps, voids, etc.

The product has been tested as a part within the Fire Barrier assembly for 04 hours as per BS: 476 part 20 with NABL Lab.



Key Features:

- Acrylic Based Fire Rated Sealant
- High content of Solids in Volume.
- Material is not affected by ageing and is mechanically tough.
- Suitable for exterior and interior use
- No Ampacity Reduction (No Cable Derating)
- Flexible and Durable
- Asbestos Free
- Water and Weather Resistant
- UV Resistant
- Non-toxic & Non-Irritant
- Odourless
- Non-Combustible
- Halogen Free
- Suitable for multiple applications like joint & gaps filling, surface coating, etc.



FIRESTOP® AK-320

FIRE PENETRATION SEALING & BARRIER SYSTEM – TYPE "A"

Firestop® AK-320 Fireproof Sealing & Barrier System is an integrated, pre-tested fire penetration sealing system which prevents the spread of fire through openings, this system is specially designed to seal the floor openings below Control & Instrumentation Panels & other most complex switchgear units within the Industrial buildings.

The system has been tested and approved as per BS-476 part 20, UL: 1479 (ASTM E-814)



Components:

1 Expandable Fire Rated Foam :

Highly expandable Low Density, high-insulating, expandable fire rated foam is provided to ensure the protection of most critical equipment of the industry during a Fire Hazard incident. It not only restricts the fire but also lowers the rise of Temperature & penetration of smoke on the either side.

2 Firestop® Composite Fire Board:

High strength, Fire proof, Water Proof Composite Fire Board is provided at the opened side (fire exposed side) of the fire sealing / fire barrier. The fire board is composed to be highly temperature resistant, incombustible, non-corrosive, non-toxic, made up of compressed minerals in the form of board. The panel board is capable to cope with thermal-loads, vibrations, foot traffic, drop-loads and to allow cavity/void filling for tightness against ingress of fire, smoke and gases.

3 High-density Mineral Wool Board:

High-density Mineral Wool Board which seals the entire opening, locks the air and ensures 100% intact oxygen restricted seal. One or two layers of MWB can be used to get different fire ratings.

4 Sealant & Top Coat Mastic (Firestop® AK-315):

High Temperature Resistant and Fire Proof Sealant cum Mastic compound is used to seal the small voids, gaps, joints, profiling cuts, etc within the Composite Fire board & Mineral Wool board, additionally the same compound is applied as a topcoat over entire sealing system after final commissioning of the same, it restricts oxygen, smoke, etc and ensures the 100% stability & insulation of the system. This product is non-hazardous, non-toxic, solvent free & asbestos free.

5 Hardware & fittings:

System is erected with help of certain specially designed hardware fittings like MS Perforated Angles / Strips, Anchor Bolts, Nuts & bolts, etc to provide extra ordinary strength to the system, it ensures long durability and high integrity of system during fire breaks.

Key Features:

FIRESTOP® AK-320

Fire Sealing & Barrier System has been tested within the required Fire Rating as per various international standards like: BS: 476 part 20, ASTM E814, UL: 1479, etc.

The System is totally Customizable:

It gives us scope to carry the Erection & commissioning exactly as per the requirement of the Fire Sealing depending on the solution required.

High life expectancy :

The System once erected has high life expectancy (If not damaged by Fire, Mechanical breakage, renovation, etc.) of more than 40 years i.e., equivalent to life of parent equipment

AREAS OF APPLICATION



AC DUCT



INSULATED PIPE



NO PENETRATION



CURTAIN WALL



JOINT SYSTEM



CABLE TRAY



BUSWAY



METALLIC PIPE



MULTIPLE PENETRATION



CABLE BUNDLE



FIRESTOP® AK-318

FIRE PENETRATION SEALING & BARRIER SYSTEM

TYPE "B"

Firestop® AK-318 Fireproof Sealing & Barrier System is an integrated, pre-tested fire penetration sealing system which prevents the spread of fire through cables, ducts, pipes and various openings within walls, floor, roof, below panels, trench, etc.

The system has been tested and approved as per BS-476 part 20, UL-1479 (ASTM E-814).



Components:

1 Firestop® Composite Fire Board:

High strength, Fire proof, Water Proof Composite Fire Board is provided at the opened side (fire exposed side) of the fire sealing / fire barrier. The fire board is composed to be highly temperature resistant, incombustible, non-corrosive, non-toxic, made up of compressed minerals in the form of board. The panel board is capable to cope with thermal-loads, vibrations, foot traffic, drop-loads and to allow cavity/void filling for tightness against ingress of fire, smoke and gases. The board provides excellent mechanical support, great finishing & additional strength against fire break.



2

High-density Mineral Wool Board:

which seals the entire opening, locks the air and ensures 100% intact oxygen restricted seal. One or two layers of MWB can be used to get different fire ratings.

3

Sealant & Top Coat Mastic (Firestop® AK-315):

High Temperature Resistant and Fire Proof Sealant cum Mastic compound is used to seal the small voids, gaps, joints, profiling cuts, etc within the Composite Fire board & Mineral Wool board, additionally the same compound is applied as a topcoat over entire sealing system after final commissioning of the same, it restricts oxygen, smoke, etc and ensures the 100% stability & insulation of the system. This product is non-hazardous, non-toxic, solvent free & asbestos free.

4

Hardware & fittings:

System is erected with help of certain specially designed hardware fittings like MS Slotted Angles / Strips, Anchor Bolts, Nuts & bolts, etc to provide extra ordinary strength to the system, it ensures long durability and high integrity of system during fire breaks.

Key features & benefits:

FIRESTOP® AK-318 –

Fire Sealing & Barrier System has the maximum Fire Rating Within the Category as per various National & International standards like: BS: 476 part 20, ASTM E814, UL: 1479, etc.

The System is totally Customizable: It gives us scope to carry the Erection & commissioning exactly as per the requirement of the Fire Sealing depending on the solution required.

High life expectancy :

The System once erected has high life expectancy (If not damaged by Fire, Mechanical breakage, renovation, etc.) of more than 40 years i.e., equivalent to life of parent equipment.

Low in cost & Maintenance Free:

The system is relatively lesser in cost than with various other systems used globally for same application. The system does not require any periodic maintenance post Installation.

AREAS OF APPLICATION



AC DUCT



PARTITION WALL



COMBUSTIBLE PIPE



NO PENETRATION



HEAD OF WALL JOIN



CURTAIN WALL



JOINT SYSTEM



CABLE TRAY



BUSWAY



METALLIC PIPE



MULTIPLE PENETRATION



CABLE BUNDLE



FIRESTOP® AK-325

FIRE RATED MORTAR

Firestop®- AK - 325 Fire Rated Mortar is a ready-mix, non-toxic, heavy-duty, Cementitious Fire Rated Mortar. The Mortar is suitable to seal all types of openings within any Industrial, Commercial or Domestic Building. The System once cured restricts the availability of oxygen & restricts the spread of fire through the PVC cables from one are to another.

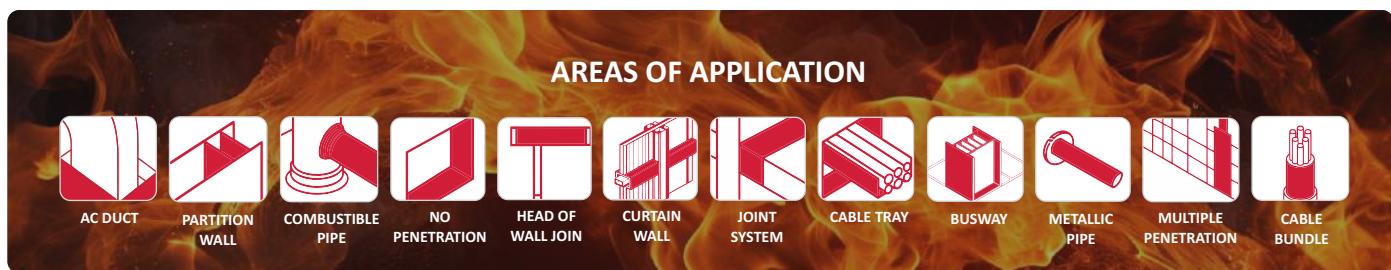
The fire rated mortar is halogen free and does not contain solvents, plasticizers, asbestos or other hazardous inorganic fibres. It is odourless, is compatible with and adheres to Civil & metal substrates along with typical cable jacketing materials. Our formulation has been used by major utilities and corporations for over 15 years and is considered by all of them for regular applications for fire barrier in cable runs.

Firestop® FRM has been tested and approved as per BS-476 part 20, UL-1479 (ASTM E-814).

Key Features:

Nature of Product	Dry Cementitious Mortar in Fine Powder Form
Colour	Grey
Packing	25 kg Air Tight PVC Sacks
Bulk Density	650 to 800 kg./m3 (DRY)
Consumption	80 kg. ± 15% Per SQM. for 4 hours Fire Rating 40 kg. ± 15% Per SQM. for 2 hours Fire Rating
Shelf Life	12 months from manufacturing (Sealed Pack-under prescribed storage conditions)
Flash Point	Nil
Test Specifications	Tested as per BS: 476 Part 20, UL: 1479 & ASTM E814
Mixing	Normal, Clean & room temperature Water
Storage	In a cool Dry place temp. between – 5 to 40° centigrade, within a warehouse free from moisture.
Drying Time	Air Dried, Touch Dry: 08-12 hrs, hard dry 3-5 days





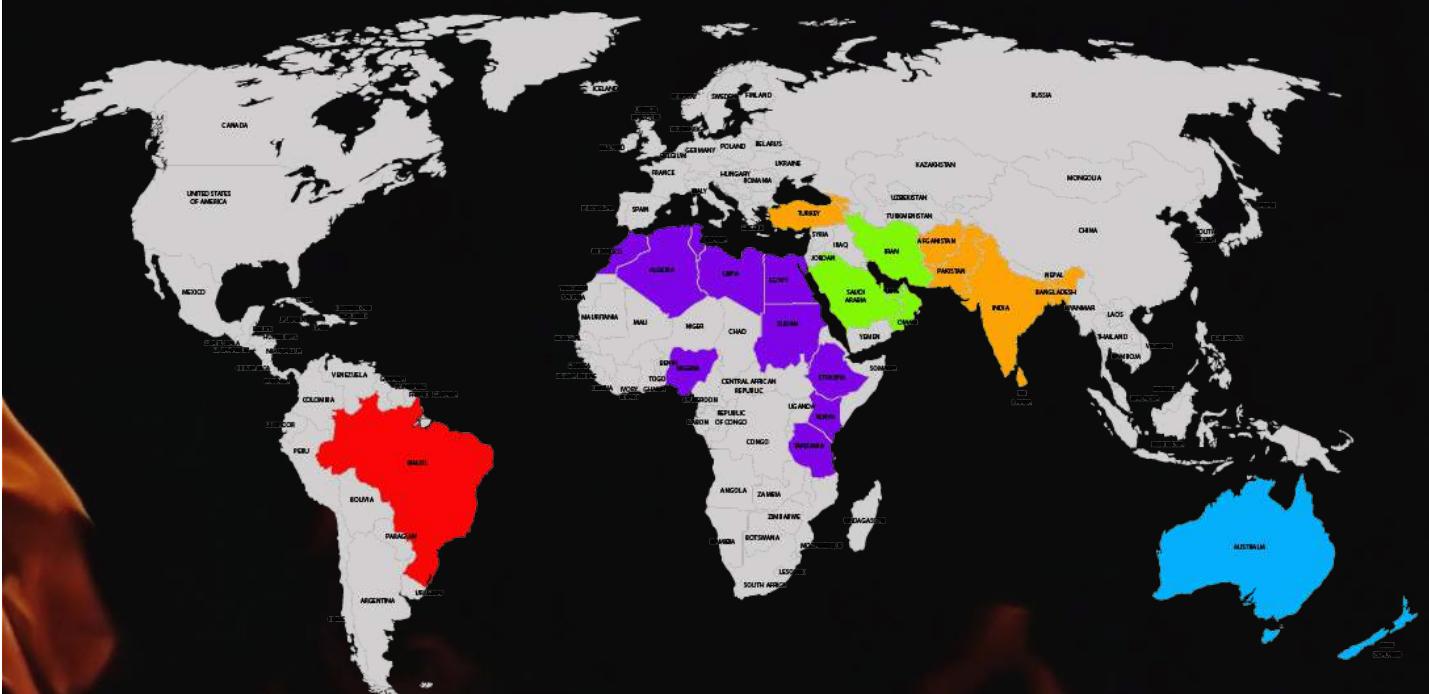
CERTIFICATION



OUR CLIENTS



OUR GLOBAL PRESENCE



GLOBAL DISTRIBUTION

ASIA

MIDDLE EAST

AFRICA

OCEANIC

SOUTH AMERICA



INDIA



SRI LANKA



UAE



KUWAIT



SUDAN



TUNISIA



AUSTRALIA



BRAZIL



TURKEY



ARMENIA



IRAN



BAHRAIN



EGYPT



MOROCCO



NEW ZEALAND



GEORGIA



BANGLADESH



OMAN



SAUDI ARABIA



LIBYA



ETHIOPIA



AZERBAIJAN



PAKISTAN



QATAR



ALGERIA



KENYA



TANZANIA



NIGERIA





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