

Think before Fire Propagates

FIRE

We introduce ourselves as a manufacturer's of Fire Retardant Systems. Presently systems adopted for fire protection in industries are mainly Active Fire Protection Systems, like fire extinguishers, fire hydrants, water sprinklers, smoke detectors, fire alarm systems etc. The role of Passive Fire Prevention Systems is more important as such system suppresses the fire / flame at it's beginning / source and prevents further progress of fire along the combustible surfaces. Such systems minimize the spread of fire / flame, in the event of fire it saves lives as well as valued equipments. We also undertake turnkey contracts.

SF-01

Fire Retardant Coating

SF-01 is a water based Fire Retardant/Resistant Coating, in the event of fire, it stops / prevents spread of fire along the cable runs. It can be applied on any cable jacketing material like PVC/XLPE/PILC/FRLS cables etc. SF-01 is a water based intumescent type coating which makes the surface fire resistance for a considerable time and does not release any toxic gases during the fire, and it retards the progress of fire on surface. TESTED IN ACCORDANCE TO IEEE-383, IS-10810 part 53 for Flame spread.

Technical Details

* Composition	: Water based blend of Inorganic-Organic compounds with specially developed FR Additives. Free from Asbestos, Halogen.
* Colour	: Off White (Lighter Shade can be prepared by adding Universal Stainer)
* Density	: 1.30 ± 0.05
* Solid Content (By Wt.) %	: 55±3
* Application	: By Airless Spray, Brush, Roller Prior to application, remove dirt - dust, oil, grease if the surface is smooth and plastic like (eg. Plastic - PVC) On metal surface, remove all foreign particles from the surface and prepare the surface by means of scuffing / blasting (depends upon the service conditions). For wooden surface make the surface smooth and even by means of scuffing and applying normal putty and re scuffing of putty.
* Solvent for thinning	: Water
* pH	: 7 to 8
* Ampacity	: De-rating of cables not required.
* Coverage	: 3.0 Kgs. per Sq. Mtr. at DFT of 1.50 mm +/- 0.2 mm
* Water / Chemical Resistance	: Passes for water resistance, Acids and Alkalies
* Flexibility	: Flexible 6 X D
* Adhesion	: Good for all cable jacketing materials types of surface.
* Drying Time (at normal atmospheric temperature)	: Touch Dry - 15 to 30 Minutes : Re-coating Interval - 2 - 3 Hours : Total Dry - 48 Hours
* Storage	: To be stored in factory sealed container under shade in cool dry place. Avoid direct exposure to sun light.
* Storage Life (For wet material)	: 12 Months from the date of manufacturing date
* Recommended DFT	: For desired Fire Protection 1.50 mm +/- 0.2 mm.
* Packing Available	: 20 Kgs. HDPE - Plastic containers / MS Containers
* Life Expectancy of Coating (Dry Basis)	: Equivalent to life of cable.

SF-02

Single Component Fire Proof Penetration Sealing System

SF-02 is a single component Fire Prevention Sealing system recommended for installation in wall/floor/under control panel openings in substations/cable cellars/cable galleries/cable trenches.

As per IS-12458 , wall/floor/under control panels openings are to be sealed with Fire Prevention Materials to minimize the spread of fire or to compartmentalize from other zones along the electrical cables which are passing through openings.

Advantage of single component system is that they are economical and environment friendly. SF-02 is a well balanced blend of special Fire Resistant / Retardant additives and refractories. The installation procedure is easy and does not require any special skills / tools & tackles. Sealing compound is non toxic and non hazardous.

Once installed in either wall or in floor openings, it cures by it's own and is maintenance free. If desired addition/deletion of cables is possible. No special tools/skills are required in such cases.

SF-02 can withstand normal foot traffic. In case of fire, it provides sufficient time to cope with the situation without further spread of fire to other zones of the building. System does not allow Fire /Smoke/Temperature to pass on the unexposed side through the opening even after three hours of exposure to the fire.

SF-02 is mainly recommended for industries like Petrochemicals, Refineries, Steel Plants, Power Plants, Chemical Plants and others where chances of Fire Hazards are high due to dense electrical cable networking.

Technical Details

* Type	: Castable Type
* Composition	: Refractory based blended with specialty FR additives
* Recommended for	: To install Fire Stop Barriers in wall/floor/UCP openings.
* Functionality	: Does not allow Fire/Smoke/Temperature to pass through opening once sealed with SF-02
* Water resistant	: Passes (Cured System)
* Effect of impact	: Impact test passes for 1.5 Kg. Load at 1.0 mtr. Height
* Fire resistant	: Withstands for 3 Hrs.
* Chemical resistant	: Passes
* Toxicity	: Non Toxic and harmless to Environment
* Retrofit	: Retrofit design
* Smoke generation	: No Smoke when exposed to FIRE
* Life Expectancy	: Equivalent to the life of Structure
* Accelerated ageing test	: Tested and passes
* Effect on current rating of cables	: Does not affect/no de-rating required
* Application	: Manually by skilled workmen



SF-03

MULTI COMPOUND FIRE SEALING SYSTEM SF-03 - AS FIRE BARRIER

Multi Compound Fire Sealing System SF-03 acts as a Fire barrier or fire stops for passive fire protection system which prevents propagation of fire from one fire zone to the other. For example - preventing propagation of fire through floor penetration or wall penetration etc..

The certification Standard IS:12459-1988 recommends segregating cable runs into compartments with a view to localize a Cable Fire and the resultant propagation.

Our Product Multi Compound Fire Sealing System SF-03 which acts as a Fire Barrier comprises of - Non-combustible Fire Resistant Board used as a encasing Panel, Fire Seal and Infill Panel. The Non-combustible Fire Resistant Board is used to protect the Infill material from vibrations, drop-loads and other Physical / Mechanical stresses and strains. The Fire Resistant Board is fitted mechanically to the wall/floor by using Anchor Fasteners. The said system is designed to provide three hours Fire Resistance.

- 1. Fire Sealing :** The Fire Resistant Fire Seal **SF-03** is used for sealing the areas around the Cables and the joints of the support frame.
- 2. Infill Panel :** The Infill Panel coated with our special Fire Retardant coating comprises of Mineral / Ceramic fibers of suitable size and thickness. This system protects the cavity of wall/floor against passage of smoke/hot gases under intense fire conditions and extends full integrity for the rated period.
- 3. Anchor Fasteners :** The Multi Component Fire Sealing System SF-03 is mechanically fitted with the help of Galvanised M.S. Bolts and Nuts on the openings. If required, Slotted Angles / Angles are used for fitting.

Application area : SF-03 works as a Fire barrier through effective compartmentation at the time of Fire by installing at the following areas. SF-03 is used for Cables Exit and Entry openings -

- ✧ Floor openings
- ✧ Wall openings
- ✧ Under Control Panels
- ✧ False ceiling

SF-03

TECHNICAL DATA-SHEET

The system SF-03 is completely resistant to moisture, humidity and chemicals.

The salient features are -

- ✧ Multi Compound Non-combustible System
- ✧ Designed for 3 (Three) hours fire rating
- ✧ No effect due to vibration, impact and radiation
- ✧ Mechanically strong and can bear drop loads
- ✧ Maintenance Free
- ✧ Life expectancy 30 to 40 years

Technical Details

1.	Test for certain parameters for cable Fire Stop Barrier SF-03 Test Report of CBRI
2.	Fire rating test for 3 (Three) hours with impact Test, Accelerated Ageing Test, Water Absorption Test, Vibration Test and Hose Stream Test.
3.	SF-03 Fire Barrier System is free of Shrinkage, Ageing
4.	It will resist from Vermiculite, Rodent and Insects
5.	Toxicity: Non-toxic, unaffected by oil / lubricant spillage and protects from corrosive gases in the atmosphere.
6.	Cracking : No cracks
7.	It is Retrofit in Design
8.	Cable Jacketing material : Compatible with all Cable jacketing material
9.	Current carrying capacity : No effect

Standards Applicable:

BS-476 part 8 & 20, UL-1479, ASTM: E-119 & 814, IS-3809, IEEE-634, IS-12458