Fo-Poxy (SCR)

Trowelable Chemical Resistant Lining & Composite Repair System

DESCRIPTION:

Fo-Poxy (SCR) is a non sag smooth butter consistency paste composed with toughened Epoxy polymeric binder, providing excellent performance in highly corrosive, chemical and abrasive environments, at ambient as well as elevated temperatures. This product is designed for industrial use at elevated temperatures and will maintain its physical properties under continued exposure at high constant temperature both in exposed as well as immersion conditions. Fo-Poxy (SCR) is resistant to all petroleum distillates, many solvents, hydrocarbons, steam, chemicals including acids and Alkalis, Mineral Spirits, Cutting oil, Sulphur fumes, Seawater and wastewater in ambient or in elevated temperatures. It has good bond to concrete and metal surfaces (both ferrous as well as non ferrous). It can also be used with glass fabric to build tough fibre reinforced plastic for use as a composite repair system to repair and resurface damaged and corroded parts, pipelines, vessels and equipment; where high strength is required, together with corrosion protection and chemical resistance.

FEATURES

- Trowel Grade, Self priming, Fast curing and back to service within 60 Hours.
- High temperature resistance- up to 150 °C (300 °F)
- Inflammable without carbonization
- Excellent chemical, erosion and abrasion resistance to a wide range of chemicals.
- Excellent resistance to equipment exposed to high-pressure process fluids and gas mixtures.
- Excellent resistance to wide range of hydrocarbons, water and gases rich in H2S and CO2
- Resists rapid decompression and steam out process.
- 100% solids, No VOC content

TYPICAL USES:

- Excellent for Lining of vessels and pipelines.
- Internal and External coating for flow lines and transmission lines
- Petroleum and chemical storage tanks, process equipment, bulk carriers.
- Specifically designed for gas pressure / separator vessels and down-hole tubulars
- Petroleum and industrial process equipment
- Offshore rigs and platforms
- Sour gas pipelines and process equipment
- Repair of Pitted Steel and protection of metal pipes, tanks and vessels

COLORS:

Base compound is Grey and Curing Agent is Reddish Brown. Mixed Colour of Fo-Poxy (SCR) is greyish-green

PACKAGING:

Fo-Poxy (SCR) is available in 1 Gallon Set (i.e. 4.55 Litre), Net Weight = 5.51 kgs; shipped in plastic pails of 3.15 liters of Part A (3.94 kgs) and 1.4 liters of Part B (1.57 kgs). Also available in 1 Kg Kits (715 gms of Part A and 285 gms of Part B).

TECHNICAL DATA (All values @ 25 °C)	
Solids by volume	100%
Theoretical coverage @ 1000 microns (1 mm)	1 m^2/ litre
Specific Gravity (kg / liter)	A-1.25, B-1.125
Tensile strength (ASTM D 638)	30 – 32 Mpa
Adhesive Shear Strength (ASTM D 1002)	12 - 14 MPa
Flexural Strength (ASTM D 790)	50 - 60 MPa
Hardness (ASTM D 2240)	82 Shore D
Water Vapour Permeability (ASTM E 96)	< 0.5 perm-in
Thermal Fatigue (-25°C to 120 °C, 20 cycles)	Pass
Pinhole Pressure Test @ 1500 PSI (105 Kgf/cm^2) 1 mm hole, 30 mins	Pass
Service temperature	150°C constant Dry, Spike-175°C ,Immersion-120°C

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PROCESSING PROPERTIES (Under standard lab conditions)	
Mix Ratio W/W of R : H	2.5 : 1
Mix Ratio V/V of R : H	2.25 : 1
Pot life	40 minutes (250 grams mix)
Tack free time (500 microns @ 25°C)	120 minutes
Dry to Recoat	4 hours
Maximum recoat time	24 hours
Post cure time	24 hours

COVERAGE:

Fo-Poxy (SCR) should be applied at least 600 microns DFT each coat to achieve the recommended thickness.

MIXING:

Mixing ratio is 2.25:1 by volume; i.e. 2.25 parts of Base (A) to 1 part of Hardener (B). Transfer Part A to a wide mouth container. Mix gently the Side A (base) using a heavy duty slow speed drill fitted with a mixing paddle or commercially available paint mixers. Add side B to side A and mix it thoroughly until a streak free homogeneous colour is obtained. Mix quantity only that can be used within pot life. Do not Dilute. Discard material if it starts gelling.

APPLICATION:

This product can be applied by roller or trowels depending on the volume and project size. Surfaces must be sound, dry, clean, free of oil, grease, dirt, mildew, and other foreign substances. Abrasive blast cleans the substrates to Sa 2½ BS 7079: Part A1: 1989 (ISO 8501-1: 1988). The average surface profile to be in the range 75 µm. Manually prepared surfaces should be to a min. standard of St 3 BS 7079: Part A1: 1989 at the time of coating. The concrete shall be thoroughly cleaned to remove all dirt, oil & other contaminants, as per SSPC SP-13. NACE 6/ SSPC- SP-1.The Min. temperature for application is 7°C below which you may require to heat the substrate as well the material.

STORAGE:

Twelve months in factory delivered, unopened drums. Keep away from extreme heat, freezing, and moisture.

CHEMICAL RESISTANCE:

The following chart is the results of product immersed in chemicals and tested as per ASTM D 3912.

Chemicals	Resistance	Chemicals	Resistance
Hydrochloric acid upto 20 %	R	Xylene (Ambient)	R
Sulphuric Acid upto 30%	R	Food Stuff and Beverages	R
Ammonium Hydroxide 20%	R	Carbon Dis sulphide	R
Caustic Lye upto 30%	R	Refined Petroleum products	R
Crude Oil, JetFuel,	R	Sewage, Waste water	R
Gasoline, Kerosene, Diesel	R	Oils (Pine, Castor, Linseed)	R
Motor Oil, Lubricants	R	Sea water,Deionized water	R
Methanol, Ethanol, Butanol	R	Water @ 150°C	R

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