

Fo-Poxy (TS)

Thermal Shock Resistant Lining Compound

DESCRIPTION:

Fo-Poxy (TS) is a plural component system composed of ceramics in a polymeric binder, providing excellent performance in corrosive, chemical and abrasive environments, at ambient or 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. It is resistant to all petroleum distillates, most solvents, dilute acids, dilute alkalis, sulphur fumes, acid fumes, distilled water, seawater, and waste water in ambient or elevated temperatures. It is also suitable in cryogenic applications as well as suitable in applications requiring to handle thermal cycling.

FEATURES

- Self priming on steel substrates.
- High temperature resistance- up to 225°C
- Inflammable without carbonization
- Excellent abrasion resistance
- Good impact resistance
- Excellent resistance to wide range of petroleum distillates
- Spray or brush and roller applied
- 100% solids, No VOC content
- Available in coating as well as trowel grade

TYPICAL USES:

- Internal and External coating for flow lines and transmission lines
- Petroleum and chemical tanks
- Petroleum and industrial process equipment
- Petroleum bulk carriers and storage tanks
- Offshore rigs and platforms
- Sour gas pipelines and process equipment
- Concrete chimneys

COLORS:

Fo-Poxy (TS) is available in standard light grey and other Limited Colours (Subject to minimum quantity).

PACKAGING:

Fo-Poxy (TS) is available in 18 Litre kits (Net Weight = 28.35 kgs) shipped in plastic pails of 15 liters of Part A (25.20 kgs) and 3 liters of Part B (3.15 kgs).

TECHNICAL DATA (All values @ 25 °C)	
Solids by volume	100%
Theoretical coverage @ 100 microns	10m ² / lit
Specific Gravity (kg / liter)	A-1.68, B-1.05
Tensile strength (ASTM D 638)	38 - 40 Mpa
Adhesive Shear Strength (ASTM D 1002)	14 - 16 MPa
Flexural strength (ASTM D 790)	58 - 60 MPa
Hardness (ASTM D 2240)	75 Shore D
Water Vapour Permeability (ASTM E 96)	< 0.5 perm-in
Thermal Fatigue (-35°C to 150 °C, 20 cycles)	Pass
Pinhole Pressure Test @ 70 Kgf/cm ²	Pass
Service temperature	180°C constant, Spike-225°C ,Immersion-160°C

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PROCESSING PROPERTIES (Under standard lab conditions)	
Mix Ratio W/W of R : H	8 : 1
Mix Ratio V/V of R : H	5 : 1
Pot life	45 minutes (250 grams mix)
Tack free time (500 microns @ 25°C)	6-8 hours
Dry to Recoat	10-12 hours
Maximum recoat time	18-20 hours
Post cure time	24 hours

COVERAGE:

Fo-Poxy (TS) should be applied at less than 400 microns DFT each coat to achieve the recommended thickness.

MIXING:

Mixing ratio is 5:1 by volume; i.e. 5 parts of Base (A) to 1 part of Hardener (B). 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 (hardener) 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.

APPLICATION:

This product can be applied by dedicated airless spray equipment, brush, roller or trowels depending on the volume and project size. An airless pump 45:1 or higher is recommended. Trowel grade material is also available for a higher DFT metal repair and rebuilds application. 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 minimum 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, and other contaminants, as per SSPC SP-13. NACE 6/SSPC- SP-1. The Minimum temperature for application is 7°C below which you may require to heat the substrate as well the material.

STORAGE:

Eighteen 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 15 %	R	Methanol, Ethanol, Butanol	R
Sulphuric Acid 20%	R	Xylene, Toluene (Ambient)	R
Citric Acid	R	Carbon Dis sulphide	R
Acetic Acid 10%	R	Refined Petroleum products	R
Ammonium Hydroxide 10%	R	Sewage, Waste water	R
Crude Oil, JetFuel,	R	Most Industrial effluents	R
Gasoline, Kerosene, Diesel	R	Sea water, Deionized water	R
Motor Oil, Lubricants	R	Water @ 150°C	R

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