Technical Data Sheet

Product Name: RELINFORCE Surface Shield III

Ambient quick cure protective coating for metal and concrete.

Description

Four component system protective coating for primer as well as top coat, could be applied alone, with filler or as fiber reinforced composite, low viscosity product designed for proper coating /sealing of cracks or protective lamination on concrete and metal. The product is designed to resist variety of chemicals including sulfuric and phosphoric acids.

Application Areas

- As primer, mid coat or top coat in corrosive environments
- Suitable for metal and concrete substrates
- Suitable for offshore and onshore installations
- Suitable for buried tanks & pipes internally or externally.

Features & Benefits

- Low viscosity assists in opting desired processing techniques
- Fast curing and strength buildup
- High Wear and Abrasion Resistance
- Superior mechanical & chemical resistance

System Properties

Parameters	UOM	Specification
Appearance	Visual	Clear Pinkish Liquid
Acid Value	mg KOH / gm	≤ 10
Volatile Content	%	37 - 46
Specific Gravity @ 25^0c	-	1.04 - 1.08
Viscosity @ 25^0c	cP	300 - 400
Gel Time @ 25^0c with 0.50 phr promotor, 2-3 phr accelerator (based on site temperature) and 1.0 phr catalyst.	min	3 - 5

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Component Details & Physical Property

Designed Formulation for spray Application

	Resin	Promotor	Accelerator	Catalyst	Mixed
Feel	Liquid	Liquid		Liquid	Liquid
Mixing Ratio (phr)	100	0.5	2-3	1	-
*Setting Time @ 25^0 C					3-5 minutes @ 25^0C
Application Thickness					< 3mm
Change in Volume					No Shrinkage Observed

Note: Ambient Temperature will affect the Pot life & Setting Time of the Product & is inversely related.*

Mechanical Properties

Physical Properties of *RELINFORCE Surface Shield III* with chopped glass fiber (Resin to Fiber Ratio-1:1)

Test	Method	Values
Tensile Strength (Mpa)	ASTM D 638	> 150
Tensile Modulus (Gpa)	ASTM D 638	> 11
Flexural Strength (Mpa)	ASTM D 790	> 270
Flexural Modulus (Gpa)	ASTM D 790	> 7.5
Impact Strength (kJ/m²)	ASTM D 256 (NOTCHED)	> 75
Hardness	Barcol	> 45

Mixing Procedure

Take 100 phr of resin in the resin pot of a spray machine, use the catalyst equivalent to 1 phr, 0.5 phr promotors and 2 to 3 phr accelerator and spray the same on the substrate.

Fiber to Resin Ratios (in kg) for the spray coating will be 1 : 2

Application Procedure

- For coating application, mixing to take place instantaneously in a spray machine and mixture will be sprayed on substrate with chopped glass fiber through the same spray coating machine.

Suface Preparation

- Surface to be clean of Oil, Grease, dust & any other material which will affect the adhesion.
- Appropriate Methodology to be adopted to achieve sound substrate for application of product.

- Substrate Residual Moisture to be less than 4%. Not to be applied on substrate with rising dampness.
- Spray the mix material with over the substrate to achieve required thickness.
- Application to ensure all pinholes & surface undulation is covered.

Packaging Size

Resin: 20 Kg, 200 Kg
Catalyst: 300 mL, 3000 mL
Promoter: 1 L, 10 L
Accelerator: 1 L, 10 L

Shelf Life

Resin: 2 Months
In some markets commercial shelf life can be dictated shorter by local legislation. The above is minimum shelf life, thereafter the quality is subject to re-inspection.

Storage Condition

- Material to be stored in cool dry place
- To be kept in shade with no direct sunlight
- Storage temperature not to exceed 25 °C.

Health & Safety Hazard Condition

Please observe the precautionary notices displayed on the container. Use under well ventilated conditions. Do not inhale spray mist. Avoid skin contact. Spillage on the skin should immediately be removed with suitable cleanser, soap and water. Eyes should be well flushed with water and medical attention sought immediately.

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