

Technical Data Sheet

Date of Issue: 1st Jul 2021

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Product Name: RELINFORCE Surface Shield III-N

Ambient quick cure protective coating for high temperature application

Description

3 component protective coating system as 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. Since the resin retains the mechanical properties even at elevated temperatures, it allows the end users to operate the equipment in a variety of applications.

Application Areas

- As primer, mid coat or top coat in corrosive environments at elevated temperature
- 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 such as hand layup, spray up etc.
- Fast curing and strength buildup
- High Wear and Abrasion Resistance
- Superior mechanical & chemical resistance at higher temp

Resin Properties

Parameters	UOM	Specification
Appearance	Visual	Clear Amber Liquid
Acid Value	mg KOH / gm	6 - 10
Volatile Content	%	33 ± 4
Specific Gravity @ 25 ⁰ c	-	1.07 ± 0.03
Viscosity @ 25 ⁰ c	cP	300 ± 50
Gel Time @ 30 ⁰ c with catalyst 1.5 phr + accelerator 0.25 phr	min	20 - 25
Peak Exotherm Temp	⁰ c	190

*Gel time will vary with temperature and amount of catalyst & accelerator used.

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Mechanical Properties – Resin cast

Property	Value	ASTM/ISO Method
Tensile strength	>80 MPa	ASTM D638
Tensile modulus	>3500 MPa	ASTM D638
Elongation at break	3 - 4 %	ASTM D638
Flexural strength	>120 MPa	ASTM D790
Flexural modulus	>3600 MPa	ASTM D790
Heat Deflection Temperature (HDT)	> 120 °C	ASTM D648
Barcol hardness	> 35	ASTM D2583
Volume shrinkage	~ 8%	ISO 3521

Surface 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.
- Application to ensure all pinholes & surface undulation is covered.

Packaging Size

Resin: 160 Kg

Catalyst: 2.4 Kg

Promoter: 0.4 Kg

Shelf Life & Storage Condition

Resin: 3 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. Material to be stored in cool dry place with no direct sunlight. Storage temperature not to exceed 25 °C.

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