ShaliPoxy® GF

2K High Solid Glass Flake Reinforced Epoxy

STP Limited

Description

ShaliPoxy® GF is a two component, glass flakes reinforced epoxy coating having excellent abrasion / chemical resistance and high barrier properties. It can be used as abrasion resistant coating above and below water vessel areas subject to corrosion. It is suitable for use in marine environments as protective coating from acids, alkalis, solvents and salts.

ShaliPoxy® GF can be applied by both single and plural feed airless spray gun.

Product Information

Colour, Mixing Ratio	Grey / Brownish / Any colour on demand, Component A : Component B = 3 : 1 by volume
Handling & Storage	Store under cover out of direct sunlight and protect from extremes of temperature. In tropical climates the product must be stored in an air conditioned environment. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging.
Packaging	Available in 200 L drum with 1 drum of component B for every 3 drums of component A (plural feed spray application). Available in 20 L unit pack comprising 15L of Comp A & 5L of Comp B (single feed spray application)
Shelf Life	12 Months from the date of manufacture when maintain in protected storage in original unopened sealed condition at 5 - 38°C.
Handling Precautions	As with all chemical products, care should be taken during use and storage to avoid contact with eyes mouth, skin and foodstuffs. Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Reseal containers after use.

*** Coverage will change subjected to surface profile, wastage during application and other unforeseen conditions**

Characteristics @ 27°C, 55% RH

Pot life, minutes • Plural feed spray gun • Single feed spray gun	5 - 10 30 - 40	Theoretical Coverage*, m^2 / L, 400 microns DFT	2.20 - 2.50
Drying time • Touch dry, hours • Hard Dry, hours • Full Cure, days	1 - 2 10 - 14 5 - 7	Ratio by volume	3 : 1
		Volume Solids, %	98 ± 2
		Density of mix, gm / cc	1.52 ± 0.02
• Recommended DFT by plural feed spray gun, µ • Recommended DFT by single feed spray gun, µ	300 - 400 250 - 300	Scratch Resistance @ 7 Days	No Failure up to 4 kg Load

Characteristic – Technical @ 27°C, 55% RH

Hardness (Shore D), 7 days	ASTM D 2240	75 - 80
Taber Abrasion @ 7 Days, mg loss, CS 17, 1000 cycles	ASTM D 4060	< 50
Pull off adhesion, 7 days, MPa • Concrete • Steel (blasted)	ASTM D 4541	>2.5 >7
Salt Spray, 3000 hours @ 300 µDFT	ASTM B 117	No sign of corrosion

Chemical Resistance* (24 Hours exposure)

10% Nitric Acid	Good
10% Sulfuric Acid	Excellent
50% Sulfuric Acid	Good
10% Sodium Hydroxide	Excellent

***Slight discolouration of the coating will be observed however the protective property will be retained**

Field of Application

- Splash zone.
- Jetty pilings and working decks.
- Use as internal lining for crude oil, fuel oil and storage tanks.
- Boat bumpers and landings.

Advantages

- Excellent abrasion resistance.
- Excellent acid-alkali resistance.
- Excellent solvent resistance.
- Enhanced barrier properties.

Application Information

✓ **Substrate Temperature** - +10°C Min / +40°C Max
✓ **Ambient Temperature** - +10°C Min / +40°C Max
✓ **Substrate Moisture Content.** - < 5%

Application Methodology

➢ Surface Preparation

- Remove all loose gravel, dirt, oil, grease or other loose foreign particles by sand blasting /iron brush / compressed air.
- Prepare surface by mechanical grinding, shot blasting conforming to SA2½.

➢ Material Preparation

Plural feed spray application

- Stir drums of each component thoroughly for uniformity. For best result, use a variablespeed drill mixer with a spiral type blade at the bottom of stirrer rod.
- Pre heat Part-A @ 60 - 70°C and Part-B @ 40 - 45°C.

Single feed spray application

- Stir drums of each component thoroughly to a homogenous and uniform mix with a slow speed stirrer fitted with a suitable mixing paddle.
- Combine Component A and B in a suitably sized container.
- Mix properly for 3 - 5 minutes with a slow speed stirrer until a homogeneous colour is achieved. Keep the paddle below the surface to avoid entrapping air. **Do not mix by hand**.
- The temperature of the mixed base and hardener should preferably be more than 10°C, otherwise extra thinner may be required to obtain application viscosity.
- Thinner addition results in reduced sag resistance, volume solid and DFT.
- Try to apply the material as supplied, if necessary dilute with STP Thinner in the range of 1 - 5% for **application ease only**.

➢ Application of Material

Plural feed spray application

- Apply **ShaliPoxy® GF** by plural feed airless spray gun @ 300 - 400 µ WFT on the blasted substrate / primed surface. We recommend to prime with **ShaliPrime Zn Ph 60** as primer.
- The tip pressure typically should be 2500 - 4000 psi (the tip pressure should be adjustedto achieve good atomisation of the spray) with minimum 70:1 pump ratio or above.
- Tip size typically should be 27- 35 Thou orifice.
- Allow it to touch dry as per our technical data sheet.
- The 2nd coat, if required should be applied only after the first coat has dried (6 - 10 hours) at 30°C. If the application of the 2nd coat is delayed by 16 hours, wipe with a suitable solvent before application.

Single feed spray application

- Apply **ShaliPoxy® GF** direct to metal/concrete immediately after blasting/surface cleaning or prime surface with any epoxy primer. We recommend **ShaliPrime Zn Ph 60**. Allow the primer to touch dry.
- Apply first coat of **ShaliPoxy® GF** on the prepared surface by brush / roller /spray.
- Allow it to touch dry as per our technical data sheet (depending on ambient condition)
- The 2nd coat, if required should be applied only after the first coat has dried (5 - 8 hours) at 30°C. If the application of the 2nd coat is delayed by 16 hours, wipe with a suitable solvent before application.
- In case of airless spray, use standard equipment having pump ratio of 70:1 or higher, tip size of 0.88 - 0.98 mm and tip pressure 250 - 280 kg / cm^2.

Value base of product data

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control and different test methods.

Health and Safety information

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent **Material Safety Data Sheet**.

- Wear suitable protective clothing such as overalls, goggles, dust mask and gloves. Ensure that there is adequate ventilation in the area where the product is being applied.
- Do not breathe in vapour or spray mist.
- This product is flammable.
- Keep away from sources of ignition.
- Take precautionary measures against static discharge.
- In case of fire, blanket flames with foam, carbon dioxide or dry chemicals.
- Eye protection during application is recommended.
- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- In case of skin contact, wash with soap and plenty of water. Get medical attention if irritation develops or persists.

Cleaning & Maintenance

Clean all tools immediately after use with STP Thinner only. Do not allow the material to harden.