

ShaliPoxy® CTE 103 I

2K Anti-corrosive / Protective Flexible Coal Tar Epoxy Coating



Description

ShaliPoxy® CTE 103 I is a two component, epoxy resin system modified with coal tar. Additionally it has excellent corrosion / chemical / abrasion / scratch resistance and can be used direct to metal (DTM) application, without any requirement of primer. The coating is capable of giving 120 - 140 microns in single coat when applied wet-on-wet basis as per recommended coverage.

Approvals / Standards

IS 14948 : 2001

Product Information

Form, Colour, Mixing Ratio	Black, two component coal tar epoxy coating with mixing ratio of Component A: Component B = 3 : 1 (v/v)
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 20 L unit pack comprising 15 L of Comp A & 5 L of Comp B.
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.

Technical Characteristics at 30°C, 55% RH

Property	Method	Result
Recommended Wet Film Thickness, micron	ASTM D 4414	150 - 200
DFT @ theoretical coverage 5.5 - 7.2 m ² / L, μ **	IS 101-3-2	100 - 135
Volume Solid, %	IS 101-8-6	73 ± 2
Drying time, hours <ul style="list-style-type: none">• Surface dry• Hard dry	IS 101-3-1	2 - 3 14 - 16
Density of mix, gm / cc	ASTM D 1457	1.40 ± 0.03
Flash Point, °C <ul style="list-style-type: none">• Component A• Component B	IS 101-1-6	30 - 34 30 - 32
Pot Life, @ 21 °C, hours, 100 gm mix	Annex E, IS 14948	8
Flexibility & Adhesion, 7 days curing	IS 101-5-2	Pass on 6.25 mm diameter mandrel
Impact test, 7 days curing, 3 coats	IS 101-5-3	Passes at 2 m height
Resistance to corrosion	Annex F, IS 14948	No blistering / peeling / breakdown
Resistance to sea water, under cathodic protection	Annex G, IS 14948	Passes

** Varies with surface condition, porosity, mode of application, wastage during application

Field of Application

Corrosion resistant coating for concrete and metal structures such as:

- Crude oil storage tanks / underground structures
- Dams, Barrage gates, Penstocks.
- Foundation walls and sumps.
- sewage treatment plant, underground pipelines
- Splash zones in docks & harbors

ShaliPoxy® CTE 103 I is not recommended for surfaces in contact with potable water and other food stuffs.

Advantages

- Low viscosity formulation helps in easy application by brush or spray
- Flexible anti-corrosive / preventive coating for structures - MS or concrete - even where the structure is in continuous contact with water or submerged.
- Provides excellent resistance to corrosion, impact, thermal shock and abrasion.
- Cures to a hard, smooth and flexible surface with excellent resistance to sea / salt water, oil, acids, alkalis, crude oil and minerals.
- Compatible with cathodic protection.

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

- Steel: blast cleaned to ISO-Sa 2½ and remove dust, flakes, oil, grease or other loose foreign particles. Application of **ShaliPoxy® CTE 103 I** should be straight after steel preparation to prevent surface rusting.
- In case of new concrete, ensure the concrete is at least 28 days old and remove any loose foreign particles by compressed air.
- To avoid condensation of moisture onto the coating substrate prior to application, RH should not be above 80% and substrate temperature should be at least more than 3°C above dew point.

➤ Material Preparation

- Stir drums of each component of **ShaliPoxy® CTE 103 I** 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 12°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 2 - 5% for application ease only.

➤ Application of Material

- Apply **ShaliPoxy® CTE 103 I** 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® CTE 103 I** 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 60:1 or higher, tip size of 0.58 - 0.88 mm and tip pressure 210 - 250 kg / cm².

Precautions

- Multiple coats may be required in order to have high dry film thickness.
- Common to all epoxies, this product will be subjected to chalking on prolonged exposure to sunlight. However this phenomenon is not malefic to coating performance.
- Consumption of 1st coat on concrete surface will be slightly more than the recommended coverage as compared to the 2nd or higher coats.
- Drying time will be faster for 1st coat as compared to 2nd or higher over coats.
- Exposure to very low temperature, high humidity, rain, water ponding during and after application may lead to incomplete curing and the above mentioned coating properties may not be achieved.
- Additional losses, wastage, surface profile, ambient conditions should also be taken into consideration while correlating paint consumption and achieved DFT in case of field application.

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**.

- **This product contains coal tar.** Avoid contact with eyes and skin.
- 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.



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Product Range

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- Protective / Anti-Corrosive Coating ■ Epoxy Flooring
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