

ShaliPoxy[®] CTE 303 MI



2K Moisture Insensitive Coal Tar Epoxy Coating

STP Limited

Description

ShaliPoxy[®] CTE 303 MI is two component moisture insensitive, liquid epoxy resin based coating suitable for application over damp concrete (green concrete) and moist metal surfaces. This material is also suitable to apply where the RH is more than 85%. It is composed of epoxy resin, special type of hardener, and additives. It has excellent moisture insensitive characteristics and cures over damp concrete surface prior to any other applications.

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

Parameters	Method	Result
Recommended Wet film thickness, microns	ASTM D 4414	350 - 400
DFT @ theoretical coverage 2.5 m ² / L, μ **	IS 101	300 ± 30
Volume Solid, %	ASTM D 2697	75 ± 3
Touch dry, hours	IS 101	2 - 3
Overcoat time, hours	IS 101	8 - 12
Full Cure, days	IS 101	7
Hardness, Shore A, 7 days	ASTM D 2240	80 ± 5
Density of mix, gm / cc	ASTM D 1457	1.48 ± 0.02
Flash point, °C		
• Component A	ASTM D 3278	30 - 38
• Component B	ASTM D 93	30 - 32
Pot life, hours, 100 grams of mix	ASTM D 2471	3 - 4
Adhesion Pull off, MPa		
• Concrete surface	ASTM D 4541	3.8 (Concrete failure)
• Metal moist surface		6.0 ± 0.5
Resistance to micro-organisms	G 21	Passes
Flexibility	ASTM D 522	1/8" Passes
Salt spray, @ 300 microns DFT	ASTM B 117	2000 hours pass
Weatherability, @ 300 microns DFT, QUV	G 154	1000 hours pass
Water resistance, immersion	ASTM D 870	7 days pass
Abrasion Resistance, 1000 cycles, CS 17, mg loss	ASTM D 4060	110 ± 10
Immersion Test, 30 days		
• DIW	AWWA C 210	No blistering / peeling / disbanding
• 1% H ₂ SO ₄		
• 1% NaOH		

Impact, 45 cm	ASTM G 14 - 04	Passes
Resistance (Impedance), ohm	In-house	10 ⁸
Coating Resistance, carried out up to 6 months	In-house	10 ⁹ Ω. cm ²
Cyclic Corrosion	ISO 20340	Pass
Water Absorption, %	ASTM D 570	<0.6

** Depending upon surface condition, mode of application and wastage.

Field of Application

- Damp concrete surface.
 - More than 85% RH concrete surface (Moisture water up to 15 %).
 - MS / concrete pipes and metallic structures.
 - Concrete and steel surfaces in sewage treatment plant.
- ShaliPoxy® CTE 303 MI** is not recommended for surfaces in contact with potable water and other food stuffs.

Advantages

- Easy to mix and apply by brush / roller/spray.
- Easily penetrates into concrete surfaces and bonds strongly to damp concrete surfaces.
- Flexible anti-corrosive / protective coating for structures MS or concrete.
- Provides excellent resistance to impact, thermal shock or abrasion.

Application Information

- ✓ **Substrate Temperature** +10°C Min / +40°C Max
- ✓ **Ambient Temperature** +10°C Min / +40°C Max

Application Methodology

➤ Surface Preparation

- Remove dust, dirt, unsound plaster, flakes, oil, grease or other loose foreign particles corrosion deposits & algae etc. by wire brush.
- Roughen the surface by mechanical means by wire brushing, sand blasting (for metal substance only) or compressed air to improve bonding.
- Clean the surface by vacuum or water washing. Allow the surface to dry excess water.

➤ Material Preparation

- Stir drums of each component of **ShaliPoxy® CTE 303 MI** 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.
- Apply the material as supplied, do not dilute with thinner.

➤ Application of Material

- Apply first coat of **ShaliPoxy® CTE 303 MI** 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 23 thou and tip pressure of 2200 - 2400 psi.

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.
- Exposure to very low temperature, 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.



STP Limited
Enhancing Structures' Life

Product Range

- Waterproofing and Insulation ■ Road Surfacing
- Sealants and Additives ■ Pipeline Coating
- Protective / Anti-Corrosive Coating ■ Epoxy Flooring
- Grouts / Admixtures ■ RestoFix- Repair / Rehabilitation
- Other Construction Chemicals



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