

# ShaliPoxy<sup>®</sup> CTE 103 MI



2K Moisture Insensitive Coal Tar Epoxy Coating

STP Limited

## Description

ShaliPoxy<sup>®</sup> CTE 103-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.

## Characteristics – Physical

Colour	Black	Theoretical coverage *, m <sup>2</sup> / L	4 - 4.5
Solid, % by volume	75 ± 5	DFT, Micron	150 - 180
Touch dry, 30 °C, hr	3	Over coat 30 °C hr	10 - 12
Hard dry, 30 °C, hr	24	Mixing Ratio, by volume	3 : 1
Full cure 30 °C days	7	Chemical/ corrosion/abrasion	Excellent

\* Depending upon surface condition.

## Characteristics – Technical

Parameters	Method	Result
Wet film thickness, micron	ASTM D 4414	200 - 250
Hardness, Shore A	ASTM D 2240	55 ± 10
Specific Gravity, Mix, 30 °C	ASTM D 1457	1.34 ± 0.02
Flash point, °C		
• Component A	ASTM D 3278	> 25
• Component B	ASTM D 93	> 25
Pot life, hours, 30 °C, 100 gram	ASTM D 2471	4 hours
Adhesion Pull off, Mpa		
• Green concrete surface	ASTM D 4541	> 2.5
• Metal moist surface		> 6
Resistance to micro-organisms	G 21	Passes
Flexibility	ASTM D 522	Good
Salt spray, 2000 Hours, @ 150 micron DFT	ASTM B 117	Passes
Weatherability, 1000 Hours, QUV	G 154	Good
Water resistance, immersion- 7 days	ASTM D 870	Passes
Abrasion Resistance, 1000 cycles, CS 17, mg	ASTN D 4060	110 ± 10
Immersion Test, 30 days		
• DIW		No
• 1% H <sub>2</sub> SO <sub>4</sub>	AWWA C- 210	Blistering/peeling/disbonding
• 1% NaOH		
Impact, 45 cm	ASTM G 14-04	passes
Coating Resistance, carried out up to 6 months	In-house	10 <sup>9</sup> Ω. cm <sup>2</sup>

## 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.

## Advantages

- Easy to mix and apply by brush/ roller/spray.
- Low viscosity 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 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
- Ensure the ambient temperature is not less than 10 °C and not more than 50 °C at the time of coating.

### ➤ Material Preparation

- Stir drums of each component of **ShaliPoxy® CTE 103 MI** thoroughly to a homogenous and uniform mix a slow speed mixture (approx 400 rpm) fitted with a suitable mixing paddle.
- Ensure that there is no entrapped air.
- Then mix the entire component A and component B, which are pre-weighed. After stirring, wait for the product to settle in order to let entrapped air escape.
- Place the spiral blade at the bottom of the container before starting the mixer. This will help avoiding inducting air into the mass. Slowly move the stirrer head up to the surface while stirring. Do not remove the blade while still it is spinning. This procedure is continued for 5 minutes up and down to have a homogeneous mixing.
- Allow the combined mix to sit for an induction time of 20 minutes.
- Stir again gently with a hand stirrer to ensure uniformity before application.

### ➤ Application of Material

- Apply first coat of **ShaliPoxy® CTE 103 MI** on the prepared surface by brush / roller / spray.
- Allow it to touch dry for 4 hrs (depending on ambient condition)
- If required, apply second coat of **ShaliPoxy® CTE 103 MI** as above as per the technical data.
- In case of airless spray, use standard equipment having tip size minimum 23 thou and tip pressure 2200-2400 psi

## Cleaning & Maintenance

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

## Health & Safety

- Avoid contact with skin / eyes, and avoid swallowing.
- Ensure adequate ventilation and avoid inhalation of vapour.
- Wear suitable protective clothing, gloves and eye protection.
- In case of skin contact, rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent to clean the contacted area.
- In case of eye contact, wash with plenty of clean water and seek medical advice.
- If swallowed, seek medical attention immediately. Do not induce vomiting.

## Packing

Available in 20 L combo pack.

## Storage

Keep in cool and dry place, under shed, away from heat.

## Shelf Life

12 Months from the date of manufacture when maintain in protected storage in original unopened sealed condition at 5 - 38 °C.

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