

ShaliPoxy[®] CTE 403

Anti-corrosive / Protective Flexible Coal Tar Epoxy Coating



STP Limited

Description

ShaliPoxy[®] CTE 403 is a two component, high build, coal tar epoxy protective coating for steel and concrete surfaces giving 400 micron in single coat on wet-on-wet basis.

ShaliPoxy[®] CTE 403 has excellent corrosion / chemical / abrasion / scratch resistance and is used as direct to metal (DTM) application, without any requirement of primer.

It conforms to AWWA C-210: 2015 : 2015, SSPC Paint 16 and Corp of Engineers C200 / C200a.

Characteristics – Physical

| | | | |
|---|--------------------------------------|------------------------------------|-----------------------|
| Application | By Brush / Roller / Airless Spray | Colour | Black / Semi-gloss |
| Theoretical Coverage, m ² / L* | 2.1 ± 0.1 DFT 410 micron | Chemical / corrosion / abrasion | Excellent |
| Solid % by volume | 90 ± 2 | Scratch Resistance | Up to 4.00 kg |
| Usable temperature, °C | Up to 75 | Mixing ratio, by volume | 3 : 1 |

* Depending upon surface condition.

Characteristics - Technical

| Property | Method | Result |
|--|-------------|---|
| Wet Film Thickness, micron | ASTM D 4414 | 480 ± 20 |
| Elongation, % | ASTM D 638 | 22 |
| Tensile Strength, MPa | ASTM D 638 | 4.10 |
| Hardness, Shore A | ASTM D 2240 | 90 ± 5 |
| Specific Gravity, Mix, 30 °C | ASTM D 1457 | 1.50 ± 0.05 |
| Flash Point, °C | ASTM D93 | >30 |
| Pot Life, hrs, 30 °C | ASTM D 2471 | 2.5 |
| Adhesion pull-off, MPa | ASTM D 4541 | 8 ± 0.5 |
| Resistance to Micro-organisms | ASTM G 21 | Passes |
| Flexibility | ASTM D 522 | Good |
| Weather-ability, 1000 Hrs. QUV | ASTM G154 | Good |
| Immersion test, 30 days <ul style="list-style-type: none">DIW1% H₂SO₄1% NaOH | AWWA C-210 | No blistering / peeling / disbanding |
| Salt Spray, 1000 hrs, @ 300 micron DFT | ASTM B 117 | Excellent |
| Water Resistance, Immersion- 7 days | ASTM D 870 | Passes |
| Abrasion Resistance 1000 Cycles CS 10 , mg | ASTM D 4060 | 108 |
| Dielectric strength, V/mil | AWWA C 210 | >250 |
| Cathodic Disbondment, 30 days, mm | AWWA C 210 | <10 |

| Application Temperature, °C | | | | Resistance Temperature, °C | | |
|-----------------------------|-------------|---------|---------|----------------------------|------------|------------|
| Condition | Application | Surface | Ambient | Conditional | Continuous | Occasional |
| Minimum | 10 | 10 | 10 | High | 95 | 120 |
| Maximum | 49 | 50 | 41 | Low | -10 | -25 |

| Curing Schedule | | | | |
|-----------------|----------------|-------------|---------|-----------------|
| Temperature | Touch Dry, hrs | Recoat, hrs | | Full Cure, Days |
| | | Minimum | Maximum | |
| 10 °C (50 °F) | 10 | 12 | 48 | 15 |
| 30 °C (86 °F) | 3 | 8 | 30 | 7 |
| 50 °C (122 °F) | 1 | 3 | 24 | 3 |

Application

- MS / concrete pipes and metallic structures.
- Crude oil storage tanks / underground structures / other metal & steel structures & pipes.
- Sheet & pipe piling.
- Dams, Barrage gates, Penstocks.
- Foundation walls and sumps.
- Concrete and Steel surfaces in sewage treatment plant.
- Paper Mills / Chemical Plants.

Advantages

- Flexible anti-corrosive / protective coating for structures – MS or concrete – even where the structure is in continuous contact with water.
- Compatible with controlled cathodic protection.
- Provides excellent resistance to 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.

Application Methodology

➤ Surface Preparation

- Prepare the surface by mechanical grinding or other suitable method.
- Remove dust, flakes, oil, grease or other loose foreign particles by sand blasting, iron brush or compressed air.
- In case of new concrete, ensure the concrete is at least 28 days old.
- 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 403** thoroughly to a homogenous and uniform mix with a slow speed stirrer 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.
- 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.
- After stirring, wait for 5 minutes in order to let entrapped air escape.
- Stir again gently with a hand stirrer to ensure uniformity before application.

➤ Application of Material

- Apply the **ShaliPoxy CTE 403** direct to metal or prime surface with ShaliPrime Zn Ph 60. Allow minimum 4 hrs for primer to touch dry.
- Apply first coat of **ShaliPoxy® CTE 403** on the prepared surface by brush / roller / spray.
- Allow it to touch dry for 3 hrs.
- If required, apply second coat of **ShaliPoxy® CTE 403** as above as per the technical data.

- In case of airless spray, use standard equipment having tip size of 0.48 - 0.88 mm and tip pressure 110 – 160 kg / cm².

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

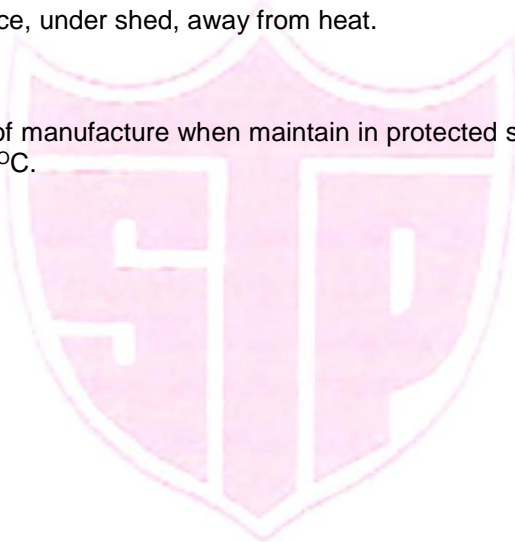
Available in 20 L and 200 L drum.

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.



STP Limited
Enhancing Structures' Life

Product Range

- Waterproofing & Insulation ■ Road Surfacing
- Sealants & Adhesives ■ Pipeline Coatings
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