

ShaliPoxy[®] CTE 403

Anti-corrosive / Protective Flexible Coal Tar Epoxy Coating



STP Limited

Description

ShaliPoxy[®] CTE 403 (formerly known as ShaliPoxy CTE 410) is a two component; high build coal tar epoxy protective coating for steel and concrete surfaces having excellent corrosion / chemical / abrasion / scratch resistance through 405 - 410 micron coating in single coat. The material is used as direct to metal application where no requirement of primer prior to the top coat.

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

Characteristics – Physical

Colour	Black / Semi-gloss	Application	By Brush / Roller /Airless Spray
Theoretical Coverage, m ² / L*	2.1 – 2.2 DFT 410 micron	Solid % by volume	90 ± 2
		Scratch Resistance	Up to 4.00 kg
Chemical / corrosion / abrasion	Excellent	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 G 154	Good
Immersion test, 30 days <ul style="list-style-type: none"> • DIW • 1% H₂SO₄ • 1% 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 Cls 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	Condition	Continuous	Occasional
Minimum	10	10	10	High	95	120
Maximum	49	50	41	Low	-10	-25

Curing Schedule				
Temperature	Touch Dry, hr	Recoat		Full Cure, Days
		Minimum	Maximum	
10 °C (50 °F)	10	12	30	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 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 the **ShaliPoxy CTE 403** direct to metal or prime surface with ShaliPrime CT or with ShaliPrime Zn Ph (**Optional**). Allow minimum 4 hrs to dry the primer.
- 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.



Advisory Cell
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Epoxy Flooring

