

ShaliProtek[®] 2E 150

2K Anti-Corrosive Polyamide Cured High Molecular Weight Epoxy Coating



STP Limited

Description

ShaliProtek[®] 2E 150 is a two-component, polyamide cured high molecular weight epoxy coating suitable as a top/intermediate coat to protect steel / concrete structures / timber and other construction materials in corrosive environment. It can be applied directly to the prepared metal surface or over the recommended primed surface. It also has excellent abrasion resistant coating system.



cftri

Approved

Approvals / Standards

USFDA - 175.300, contact with potable water

Product Information

Form, Colour, Mixing Ratio	Grey, two component Polyamide cured 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 @ 27°C, 55% RH

Parameters	Method	Result
Recommended Wet film thickness, micron	ASTM D 4414	150 - 200
DFT @ theoretical coverage 5 - 8 m ² / L, μ **	IS 101	100 - 150
Volume Solid, %	ASTM D 2697	76 ± 3
Touch dry, hours	IS 101	1 - 2
Overcoat time, hours	IS 101	10 - 15
Full cure, days	IS 101	7
Hardness, Shore D, 7 days	ASTM D 2240	60 ± 5
Density of mix, gm / cc	ASTM D 1457	1.36 ± 0.02
Flash Point, °C Component A Component B	ASTM D 93	32 - 35 30 - 32
Pot life, hours, 100 grams of mix	ASTM D 2471	1 - 2
Adhesion Pull off, MPa Concrete surface Metal surface	ASTM D 4541	2.5 (Concrete failure) 6.0 ± 0.5
High temperature resistance (Dry), °C Continuous Occasional	--	70-80 120
Low temperature resistance (Dry), °C Continuous Occasional	--	-5 -15
Salt spray, @ 200 microns DFT	ASTM B 117	300 hours pass
Abrasion Resistance, 1000 cycles, CS 17, mg loss	ASTN D 4060	110 ± 10
Water Absorption, %	ASTM D 570	< 0.6

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

Field of Application

- Metal & Steel structure.
- Pipeline internal coating for water line.
- Sheet & pipe piling.
- Dams, Barrage gates, Penstocks.
- Crude oil storage tanks.
- Foundation walls and sumps.
- Concrete and Steel surfaces in sewage treatment plant.
- Chemical Plants.
- Underground structures.

Advantages

- Flexible anti-corrosive / preventive coating for structures – MS or concrete – even where the structure is in continuous contact with water.
- 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 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

- Remove dust, flakes, oil, grease or other foreign particles by jet or dry air and clean the surface to make it smooth before applying **ShaliProtek® 2E 150**.
- Surface of steel must be prepared as per the NACE (National Association of Corrosion Engineers) or SSPC (The Society for Protective Coatings) guidelines.
- Ensure that new concrete must be at least 28 days old.

➤ Material Preparation

- Stir drums of each component of **ShaliProtek® 2E 150** 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 (400-500 rpm) 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

- Prime the surface with suitable primer. We recommend **ShaliPrime® Zn Ph 60** over metal surface whereas **ShaliPrime® 2E** in case of concrete surface.
- Allow it to surface dry.
- Apply first coat of **ShaliProtek® 2E 150** 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 (10 - 15 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 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, 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**.

- 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.
- 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.

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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