

ShaliProtek® 2AC PU TC (T)

2K Isocyanate Cured Aliphatic Acrylic PU UV Resistant Clear Top Coat



Description

ShaliProtek® 2AC PU TC (T) is two component liquid aliphatic acrylic polyurethane based UV resistant, glossy transparent coating which gives tough, flexible and solvent and mild chemical resistant coating.

Product Information

Form, Colour, Mixing Ratio	Transparent, two component polyurethane resin with mixing ratio of Component A : Component B = 13 : 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 4 L & 20 L unit pack.
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

Property	Test Method	Result
Flash Point, °C <ul style="list-style-type: none">BaseHardener	ASTM D 93	30 - 35 >150
Pot life, hours, 100 gm of mix	ASTM D 2471	3 - 4
Drying time, <ul style="list-style-type: none">Touch dry, hoursRecoating time, hoursHard Dry, hoursFull cure, days	IS 101	1 - 2 9 - 36 70 - 75 7
Volume Solids, %	ASTM D 2697	40 ± 2
DFT @ 8.5-10 m ² / L theoretical coverage, μ*	IS 101	40 - 47
Mix Density, gm / cc	ASTM D 1475	1.06 ± 0.02
Impact resistance, (kg - inch)	ASTM D 2794	150
Abrasion resistance, mg loss, 1000 cycles, CS 17	ASTM D 4060	70 - 90
Shore A hardness, 7 days	ASTM D 2240	40-50
Pull off adhesion, MPa	ASTM D 4541	1.5 - 2 (Concrete failure)
Weathering resistance, % (after minimum 1000 hrs. of exposure), Colour change	ASTM D 4587 ASTM D 2244	Gloss loss < 25 < 2 ΔE
Gloss @ 60°, 1 day	ASTM D 2457	>80
Dry temperature resistance, °C (occasional)	--	120

*Depends upon surface roughness, porosity, application method

Field of Application

- Extensive use in coastal and chemical environment.
- Power / Oil / Gas Plants / Offshore structures.
- Petrochemical / Pharmaceutical / Chemical Plants.
- Cement / Steel plants.
- Marine structures.
- Rail coach and chemical wagon exteriors.
- As a transparent protective coating to epoxy and waterproofing coating.

Advantages

- Resistant to
 - UV and weather.
 - High Impact and abrasion.
 - Industrial corrosive environment
- Better adhesion and flexibility.

Application Information

- ✓ **Substrate Temperature** +10°C Min / +40°C Max
- ✓ **Ambient Temperature** +10°C Min / +40°C Max
- ✓ **Substrate Moisture Content** < 4%

Application Methodology

➤ Surface Preparation

- **Concrete Surface**
 - 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. Remove old painting using surface grinder.
 - Remove old painting using surface grinder.
 - Ensure that concrete must be cured at least 28 days.
- **Metal Surface**
 - Remove all loose mill scale, oil, grease by wire brush and solvent
 - Blast the surface to Sa 2 or 2.5 depending on the severity of the condition

➤ Material Preparation

- Stir entire Component A thoroughly by using speed drill mixer with a spiral type blade at the bottom of stirrer rod. The speed may be 300 - 400 rpm till homogeneous mix is obtained.
- Add entire Component B in Component A. Both Component A & B comes in factory pre-weighed quantity in the ratios of 9: 1 by volume.
- After stirring, wait for 5 minutes to ensure escape of entrapped air.

➤ Application of Material

- Prime the surface – in case of concrete with **ShaliPrime PUM** and in case of metal (optional) with **ShaliPrime 2E**.
- Allow it to dry for 6 - 8 hrs. or it is touch dry.
- Apply **ShaliProtek® 2AC PU TC (T)** by brush / roller / spray to the primed surface.

	Application		
	Conventional Spray	Airless Spray	Brush / Roller
Thinner, %	5 - 7	1 - 2 max.	1 - 4
Nozzle Orifice, Thou, min.	1.2 - 1.4	0.58	
Nozzle Pressure, Psi	40 - 70	2200 - 2500	
Recommended DFT, min., microns			50

Value base of product data

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured datamay vary due to circumstances beyond our control and different test methods.

Precautions

- Multiple coats may be required in order to have high dry film thickness.
- Exposure to very low temperature, high humidity, rain, water ponding during and after application may lead to incomplete curing, blistering 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.

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 Isocyanate.** 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.



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