**ShaliProtek® 2AC PU TC 50**

**2K Aliphatic Acrylic PU Solar Reflective, UV Resistant Top Coat**

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**Description**

**ShaliProtek® 2AC PU TC 50** is two components, elastomeric, liquid, aliphatic, Acrylic Polyurethane based UV resistant gloss, transparent / pigmented, tough and yet flexible, high solar reflective coating.

It conforms to IS : 17218 : 2019.

**Characteristics – Physical**

<table>
<thead>
<tr>
<th>Finish</th>
<th>Glossy</th>
<th>Application temperature, °C</th>
<th>10 - 40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point, °C</td>
<td></td>
<td>Drying time, @ 30 °C</td>
<td></td>
</tr>
<tr>
<td>- Base</td>
<td>&gt; 30</td>
<td>- Surface dry, minute</td>
<td>30 – 40</td>
</tr>
<tr>
<td>- Hardener</td>
<td>&gt; 150</td>
<td>- Hard dry, hrs</td>
<td>6 – 8</td>
</tr>
<tr>
<td>- Volume solid, %</td>
<td>52 ± 2</td>
<td>- Full cure, days</td>
<td>7</td>
</tr>
</tbody>
</table>

| Recoeating time, hrs | Pot life, @ 30 °C | Theoretical coverage*, m² / L | 11 ± 1 |
| Minimum | 8 | Adhesion pull off, Mpa | 7 - 8 |
| Maximum | 48 | Mixing ratio, (v/v) | 9 : 1 |

| Recommended DFT, micron | Temperature resistance, °C, Dry | Hardness, Shore A, after 7 days curing | 60 ± 5 |
| 125 ± 5 | > 120 | Solar Reflectance Index | 103 |

| Mix density, g / cc | 1.25 ± 0.10 |

* Depending upon surface condition.

**Characteristics – Technical**

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact resistance, (kg – cm)</td>
<td>ASTM D 2794</td>
<td>60</td>
</tr>
<tr>
<td>Abrasion resistance, mg</td>
<td>ASTM D 4060</td>
<td>&lt; 80</td>
</tr>
<tr>
<td>UV resistance(QUV), 2000 hrs</td>
<td>ASTM G 154</td>
<td>Pass</td>
</tr>
</tbody>
</table>

**Application**

- Protection of heritage structure and statue.
- Extensive use in coastal and chemical environment.
- Power / Oil / Gas Plants / Marine.
- Offshore structures.
- Petrochemical / Pharmaceutical.
- Chemical Plants.
- Cement / Steel plants / infrastructure projects.
- Rail coach and chemical wagon exteriors.

**Advantages**

- Resistant to
  - UV and weather.
  - High Impact and abrasion.
  - Industrial corrosive environment
- Better adhesion and flexibility.
- Direct to metal application.
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.
- For best bond, ensure that concrete surface is textured.
- In case of new concrete, ensure that concrete is cured at least 28 days and moisture content is below 5%.
- Apply ShaliPrime PUM on the concrete surface
- Allow it to dry before application of ShaliProtek® 2AC PU TC 50.

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
- Apply ShaliPrime ERO or ShaliPrime Zn Ph (Optional), can be applied on direct to metal surface.

➢ Material Preparation

- Stir entire Component A (Resin) thoroughly till homogenous mix is obtained by using speed drill mixer with a special type blade at the bottom of stirrer rod.
- Add entire Component B (Hardener) into Component A. Both Component A & B comes in factory pre-weighted quantity in the ratio of 9 : 1 by volume.
- Stir the mix for two minutes.
- After stirring wait for 2 - 3 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 E.
- Allow it to dry for 6 – 8 hrs till it is touch dry.
- Apply ShaliProtek® 2E PU TC 50 by brush / roller / spray on the primed surface.

<table>
<thead>
<tr>
<th>Application</th>
<th>Conventional Spray</th>
<th>Airless Spray</th>
<th>Brush / Roller</th>
</tr>
</thead>
<tbody>
<tr>
<td>STP Thinner, %</td>
<td>5 - 15</td>
<td>1 – 2 max</td>
<td>2 - 5</td>
</tr>
<tr>
<td>Nozzle Orifice, Thou, minimum</td>
<td>1.2 – 1.4</td>
<td>0.58</td>
<td></td>
</tr>
<tr>
<td>Nozzle Pressure, Psi</td>
<td>40 - 70</td>
<td>2200 - 2500</td>
<td></td>
</tr>
</tbody>
</table>

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, consisting of Component A 18 L and Component B 2 L.
Storage

Store in a cool dry place, under shed, away from heat.

Shelf Life

12 months in original unopened sealed condition.