ShaliUrethane® PU TC 2K
2K Aliphatic Polyurethane UV Resistant Top Coat

Description

ShaliUrethane® PU TC 2K is two component, liquid aliphatic polyurethane based UV and weather resistant coating. It is ideal protective coating for exposed surfaces as it provides excellent weather resistance and stability.

ShaliUrethane® PU TC 2K films are hard, tough but flexible and impart good solvent and gasoline resistance.

ShaliUrethane® PU TC 2K is available in various colours.

Characteristics – Physical

<table>
<thead>
<tr>
<th>Finish</th>
<th>Glossy</th>
<th>Application Temp, °C</th>
<th>10 – 40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pot Life, 30 °C, hr</td>
<td>5</td>
<td>Volume Solids, %</td>
<td>60 ± 2</td>
</tr>
<tr>
<td>Drying time @ 30 °C</td>
<td>30 minutes, 6 hrs, 7 days</td>
<td>Flash Point, °C</td>
<td></td>
</tr>
<tr>
<td>• Surface Dry</td>
<td></td>
<td>• Base</td>
<td>&gt; 23</td>
</tr>
<tr>
<td>• Hard Dry</td>
<td></td>
<td>• Hardener</td>
<td>&gt; 23</td>
</tr>
<tr>
<td>• Full Cure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Theoretical Coverage, m²/L *</td>
<td>6 - 8</td>
<td>DFT / Coat, Microns</td>
<td>70 – 80</td>
</tr>
<tr>
<td>Temperature Resistance, °C</td>
<td>Up to 120</td>
<td>Recoating Time, hrs</td>
<td></td>
</tr>
<tr>
<td>Adhesion to Steel &amp; Concrete</td>
<td>Excellent</td>
<td>• Minimum</td>
<td>6</td>
</tr>
<tr>
<td>Gloss @ 60°, %</td>
<td>&gt; 80</td>
<td>• Maximum</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hardness, Shore D after 7 days curing</td>
<td>60 - 70</td>
</tr>
</tbody>
</table>

* 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 D2794</td>
<td>100</td>
</tr>
<tr>
<td>Abrasion resistance</td>
<td>ASTM D 4060</td>
<td>~ 40 mg</td>
</tr>
<tr>
<td>Weathering resistance, % (after minimum 1000 hrs exposure), colour change</td>
<td>ASTM D 4587 ASTM D 2244 ASTM D 523 Level 2</td>
<td>Gloss loss &lt; 25 &lt; 2 Δ E</td>
</tr>
</tbody>
</table>

Application

- On shore and off shore industries.
- Petrochemical and Pharmaceutical complexes.
- Cement / steel / chemical / power plants, Transportation Industries.
- Infrastructure projects.
- Protection of heritage structure and statue.

Advantages

- UV and weather resistance.
- Better adhesion and flexibility.
- Mild Chemical resistance.
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.
- For best bond, concrete surface must be slightly textured.
- Allow it to dry before priming.
- Ensure that concrete must be cured at least 28 days and moisture content is below 5%.

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 ZnPh
- Allow the primer to dry from solvent

➢ Material Preparation

- Mix ShaliUrethane® PU TC 2K component A (Resin) thoroughly by using speed drill mixer with a spiral type blade at the bottom of stirrer rod. The speed may be 350-400rpm till homogeneous mix is obtained. Then add component B (Hardener) slowly, mix with a slow speed stirrer ensuring complete dispersion.
- After stirring, wait for the product to settle in order to let entrapped air escape.

➢ Application of Material

- Prime the surface and allow it to dry for 6 – 8 hrs till it is touch dry and free from solvent.
- Apply ShaliUrethane® PU TC 2K by brush / roller / spray on primed surface.

<table>
<thead>
<tr>
<th></th>
<th>Conventional Spray Application</th>
<th>Airless Spray Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thinner, %</td>
<td>5 – 15</td>
<td>5 Max</td>
</tr>
<tr>
<td>Nozzle Orifice, mm</td>
<td>1.2 – 1.4</td>
<td>0.28</td>
</tr>
<tr>
<td>Nozzle Pressure, Psi</td>
<td>40 – 70</td>
<td>1400 - 1800</td>
</tr>
</tbody>
</table>

Cleaning
- Clean all tools immediately after use with xylene. Do not allow 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 5&20 L units consist of Component A and B.

Storage
- Store in a cool dry place, under shed, away from heat.
Shelf Life

12 months in original unopened sealed conditions.