ShaliProtek® 2AC PU Surfacer

2K Aliphatic Acrylic Polyurethane Mid Coat

Description

ShaliProtek® 2AC PU Surfacer is two components, liquid, aliphatic Acrylic Polyurethane based mat coating.

ShaliProtek® 2AC PU Surfacer gives tough, flexible and solvent and mild chemical resistant coating.

ShaliProtek® 2AC PU Surfacer is smooth and uniform available in transparent as well as different shades.

Characteristics – Physical

<table>
<thead>
<tr>
<th>Finish</th>
<th>Matt to Egg shell</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>Component A</td>
<td>&gt; 30</td>
<td>Surface dry, minutes</td>
<td>2 – 3</td>
</tr>
<tr>
<td>Component B</td>
<td>&gt; 50</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>
<tr>
<td>Recoating time, hrs</td>
<td></td>
<td>Pot life, 30 °C</td>
<td>3 – 4</td>
</tr>
<tr>
<td>Minimum</td>
<td>8</td>
<td>Theoretical coverage*, M² / L</td>
<td>8 – 10</td>
</tr>
<tr>
<td>Maximum</td>
<td>48</td>
<td>Mixing ratio (v/v)</td>
<td>9 : 1</td>
</tr>
<tr>
<td>Recommended DFT, Micron</td>
<td>50 – 100</td>
<td>Mixed density, g / cc</td>
<td>1.23 ± 0.05</td>
</tr>
<tr>
<td>Temperature resistance, °C</td>
<td>80</td>
<td>Hardness shore A, after 7 days curing</td>
<td>60 ± 5</td>
</tr>
<tr>
<td>Dry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weather resistant</td>
<td>Good</td>
<td>Adhesion pull off, Mpa</td>
<td>4 – 5</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 - inch)</td>
<td>ASTM D 2794</td>
<td>150</td>
</tr>
<tr>
<td>Scratch Hardness (1.5 Kg load)</td>
<td>IS: 101-88</td>
<td>Passes</td>
</tr>
<tr>
<td>Flexibility &amp; Adhesion</td>
<td>IS:101-88</td>
<td>Passes</td>
</tr>
<tr>
<td>Abrasion resistance, mg</td>
<td>ASTM D 4060</td>
<td>&lt; 80</td>
</tr>
<tr>
<td>UV resistance (QUV), 1000 hrs</td>
<td>ASTM G 154</td>
<td>Passes</td>
</tr>
</tbody>
</table>

Application

- Protection of heritage structure and statue.
- Extensive use in coastal and chemical environment.
- Power / Oil / Gas Plants / Offshore structures.
- Petrochemical / Pharmaceutical / Chemical Plants.
- Cement / Steel plants.
- Infrastructure projects.
- Marine structures.
- 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.
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  - For best bond, concrete surface must be slightly textured.
  - Ensure that concrete must be 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 Surfacer.

- 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 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 till it is touch dry.
- Apply ShaliProtek® 2AC PU Surfacer by brush / roller / spray to 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>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>
<tr>
<td>Recommended DFT, Minimum, micron</td>
<td></td>
<td></td>
<td>50</td>
</tr>
</tbody>
</table>

Cleaning

- Clean all tools immediately after use with STP Thinner. 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 20 L unit consist of 18 L Component A and 2 L Component B.

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

Shelf Life
12 months in original unopened sealed conditions.