ShaliProtek® NES 70
2K Anti-Corrosive Chemical Resistant Novolac Based Phenolic Epoxy

Description
ShaliProtek® NES 70 is novolac based epoxy system for protection of metal structure against splash and spillage of corrosive chemicals and solvents at higher temperature. It is an excellent coating system for secondary containment, solvent storage, pump pads, trenches, bridges and other high exposure zones.

Characteristics – Physical

<table>
<thead>
<tr>
<th>Colour</th>
<th>White / Any Colour</th>
<th>Mixing Ratio, by volume</th>
<th>Scratch hardness, kg</th>
<th>Volume Solid, %</th>
<th>Surface drying time, hrs @ 55% RB</th>
<th>Recommended DFT, micron</th>
<th>Theoretical coverage*, DFT, m² / L</th>
<th>Pot life @ 27 °C, hrs, 100 gm mix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Temperature – Dry, °C</td>
<td>90</td>
<td>3 : 1</td>
<td>&gt; 1.5</td>
<td>75 ± 2</td>
<td>2</td>
<td>100 - 125</td>
<td>8, 100 Micron</td>
<td>1</td>
</tr>
<tr>
<td>Drying time, 30 °C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Touch dry, hrs</td>
<td>2 – 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Handle dry, hrs</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Hard dry, days</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Under insulation up to 230 °C | Pass

Overcoating
- Minimum, hrs | 6
- Maximum, days | 7

Temperature Resistance, (Dry) °C | Up to 90

* Depending upon surface condition.

Characteristics – Technical

<table>
<thead>
<tr>
<th>Property</th>
<th>Method</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shore Hardness D</td>
<td>ASTM D 2240</td>
<td>55 - 60</td>
</tr>
<tr>
<td>Elongation, %</td>
<td>ASTM D 638</td>
<td>25 – 30</td>
</tr>
<tr>
<td>Tensile Strength, N/mm²</td>
<td>ASTM D 638</td>
<td>7 – 8</td>
</tr>
<tr>
<td>Impact Resistance</td>
<td>ASTM D 2794</td>
<td>150 kg-inch</td>
</tr>
<tr>
<td>Flash Point, °C</td>
<td>IS 101</td>
<td>&gt; 30</td>
</tr>
<tr>
<td>Salt Spray, 2000 hrs</td>
<td>ASTM B 117</td>
<td>Pass</td>
</tr>
<tr>
<td>Cathodic disbandment, mm</td>
<td>AWWA C 210</td>
<td>&lt; 8</td>
</tr>
<tr>
<td>Abrasion resistance, mg</td>
<td>ASTM D 4060</td>
<td>90</td>
</tr>
<tr>
<td>Adhesion N/mm²</td>
<td>ASTM D 4541</td>
<td>&gt; 2.6 – for concrete</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; 8 – for metal</td>
</tr>
</tbody>
</table>

Chemical Resistance
- 20% NaOH Solution
- 25% NaOH Solution
- 20% HCl Solution
- 10% HNO₃ Solution
- 30% H₂SO₄ Solution
- 10% Phosphoric Acid
- Diesel / Petrol

Pass, No blister
No wrinkling

Application
- Excellent anti-corrosive coating for concrete flooring exposed to acid / alkali fumes emanating at high temperature, like in Ammonium Sulphate / Annealing / Acid Plants.
- Leather processing units, fertilizer plants, are some of the areas where ShaliProtek® NES 70 will work efficiently.

Advantages
- Excellent resistance to acid and alkali vapours.
• Low VOC material.
• Bonds well at low temperature & humidity.
• Short re-coating time.

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® NES 70. Surface of steel must be prepared as per the NACE (National Anti-Corrosion Engineers) or SSPC (Steel Structure Protection Council) guidelines. For non-immersion purpose near white surface is adequate while for immersion service white metal surface is desired. Surface of steel and concrete must be free from dust, oil, soap and greasy material.

➢ Material Preparation
  • Stir drums of each component thoroughly for homogeneousness with hand drill type stirrer to ensure dispersal of any settled filler for about 5 minutes for a 15 L pack. Then mix Component A and Component B in the ratio of 3:1 by volume. Stirring at slow speed for homogenization of the two components.
  • Place the spiral blade at the bottom of the container before starting the mixer. This will help avoiding inducting air into the mass. Slowly move the stirrer head up to the surface while stirring. Do not remove the blade while still spinning. This procedure is continued for 5 minutes up and down to have a homogeneous mixing. Allow the mix 5 minutes, and then stir again gently with a hand stirrer to ensure uniformity and begin application.

➢ Application of Material
  • Prime the surface by ShaliPrime 2E for concrete surface and ShaliPrime Zn Ph for metal surface.
  • Allow the primer to dry completely before applying ShaliProtek® NES 70.
  • Apply ShaliProtek® NES 70 by brush or spray with medium or short nap squeegee rollers.

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
  ShaliProtek® NES 70 available in 20 L composite pack at the ratio of 3 : 1.

Storage
  Keep in cool and dry place, under shed, away from heat and sun.

Shelf Life
  12 Months in original unopened sealed condition.