**ShaliKote® AC**

**High Performance Acrylic Anti Carbonation Protective Coating**

### Description

**ShaliKote® AC** (Formerly known as Architectural Seal) is an acrylate based non-yellowing Anti-carbonation protective coating for concrete and masonry surface. It is available in selective colours and will not show yellowing tendency on exposure to sunlight when applied to the concrete. It forms an inert, impervious film that is resistant to alkali from fresh concrete as well as acid, salt and many construction stains. It is ideally suitable for exterior application to protect the structure from Carbonation, chloride ions, Salts, Weathering and Industrial corrosive climate.

The complete system consists of ShaliPrime AC as a primer and **ShaliKote® AC** as a Top coat. ShaliPrime AC is Silane Siloxane (solvent) based penetrative & reactive sealer, which chemically reacts with the substrate & forms a effective barrier to the dissolved ions, salts etc in the water. The total system offers a long lasting anti-carbonation and corrosion protection for concrete structures.

### Characteristics

<table>
<thead>
<tr>
<th>Physical Appearance</th>
<th>Coloured Low viscous liquid</th>
<th>Specific Gravity</th>
<th>1.00 – 1.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFT, micron including primer coat</td>
<td>150 – 175</td>
<td>Theoretical Coverage * m² / L (2 coat needed)</td>
<td>5</td>
</tr>
<tr>
<td>Application Temperature, °C</td>
<td>5 – 40</td>
<td>Reccoat time @ 25 °C, hrs</td>
<td>4 - 5</td>
</tr>
<tr>
<td>Bond strength to concrete, MPa (ASTM D 4541)</td>
<td>&gt; 1.5</td>
<td>CO₂ diffusion resistance at 80 microns DFT</td>
<td>Equivalent Air layer thickness : &gt; 70 mtr Equivalent concrete thickness : 177mm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Permeability ( As per BS : 1881) ( ml/ m² / Sec)</th>
<th>ShaliKote® AC</th>
<th>Control Concrete</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 hrs</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>6 hrs</td>
<td>Nil</td>
<td>9.7</td>
</tr>
<tr>
<td>24 hrs</td>
<td>Nil</td>
<td>31.4</td>
</tr>
<tr>
<td>48 hrs</td>
<td>9.3</td>
<td>54.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Water Absorption (%) ( ASTM C – 67 ) After 24 hrs</th>
<th>ShaliKote® AC</th>
<th>Control Concrete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>Nil</td>
<td>1.31</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Depth of Carbonation in mm</th>
<th>ShaliKote® AC</th>
<th>Control Concrete</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 hrs</td>
<td>Nil</td>
<td>1.0</td>
</tr>
<tr>
<td>4 hrs</td>
<td>Nil</td>
<td>2.8</td>
</tr>
<tr>
<td>6 hrs</td>
<td>Nil</td>
<td>5.3</td>
</tr>
<tr>
<td>12 hrs</td>
<td>Nil</td>
<td>6.4</td>
</tr>
<tr>
<td>24 hrs</td>
<td>Nil</td>
<td>9.3</td>
</tr>
</tbody>
</table>

* Depending upon surface condition.

### Application

- Old & new Concrete structures.
- Unglazed bricks and clay tiles.
- Terrazzo floors and walls.
- Exterior masonry surface.
- Bridges, Dams, Flyovers, Elevated MRTS and Marine Structures.
- Chimneys, cooling towers, Silos, Industrial buildings & power house.
Advantages

- Excellent barrier to carbon dioxide, chloride ions, sulphates, oxygen and water.
- Selected range of decorative colours.
- Highly durable in all climate conditions.
- Seals out dirt and other staining materials.
- Excellent resistance to UV rays.
- Permeable to water vapour – Breathable.

Application Methodology

➢ Surface Preparation
- Surface should be dry, structurally sound, free from grease, oil, dirt and other contaminants.
- Remove any curing compound or releasing agents prior to coating.
- Use compressed air or grit blasting to remove dust and other loose particles.
- Any blow holes, honey combs on the surface should be repaired & made even.
- Ensure that the surface is dry prior to application.

➢ Material Preparation
- ShaliKote® AC is a single pack system. Mix well before application, to ensure that there is no sedimentation.

➢ Application of Material
- Prime the surface with ShaliPrime AC @ 4 -5 m² / L.
- Allow it to dry for at-least 5 hrs.
- Apply ShaliKote® AC on the primed surface as per the coverage
- Allow it to dry for 4 – 5 hrs before re-coating of the second coat.
- Low pressure, airless sprayer is the preferred method of application. But a brush or roller may also be used for coating. Material should be applied to assure uniform coverage.

Cleaning & Maintenance

Clean tools and equipment with Xylene or Toluene before the material hardens

Health & Safety

- Avoid contact with skin / eyes and avoid swallowing.
- Ensure adequate ventilation and avoid inhalation of vapor.
- Wear suitable protective clothing, gloves and eye protection.
- In case of contact with skin, rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent to clean the contacted area.
- In case of contact with eyes, wash immediately with plenty of clean water and seek medical advice.
- If swallowed seek medical attention immediately. Do not induce vomiting.

Packaging

Available in 20 L pack.

Storage

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

Shelf Life

12 months in original unopened sealed condition
Product Range
- Waterproofing and Insulation
- Road Surfacing
- Sealants and Additives
- Pipeline Coating
- Protective / Anti-Corrosive Coating
- Epoxy Flooring
- Grouts / Admixtures
- RestoFix - Repair / Rehabilitation
- Other Construction Chemicals

STP Limited
Enhancing Structures’ Life

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