**ShaliKote AC**

**High Performance Anti Carbonation Protective / Decorative 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 a solvated Silane Siloxane 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</td>
<td>150 – 175 microns including primer coat</td>
<td>Theoretical Coverage</td>
<td>5 m²/L/coat. Two coats are needed.</td>
</tr>
<tr>
<td>Application Temperature</td>
<td>5 – 40 Deg. C</td>
<td>Recoat time</td>
<td>4-5 hrs at 25 °C</td>
</tr>
<tr>
<td>Bond strength to concrete(ASTM D 4541)</td>
<td>&gt; 1.5 MPa</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 should be dry, structurally sound, free from grease, oil, dirt and other contaminations.
- 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.
- **ShaliKote AC** is a single pack system. Mix well before application, to ensure that there is no sedimentation.
- 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.
- Apply ShaliPrime AC primer as per the coverage. Allow the primer to dry for at-least 4 -5 hrs before coating it with **ShaliKote AC**.
- Apply **ShaliKote AC** as per the coverage and allow at least 4 – 5 hrs to dry before re-coating of the second coat. ShaliSeal AC is self curing.
- Actual coverage depends upon surface texture & wastages.

Cleaning & Maintenance

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

Health & Safety

- Use mask, nose cover and hand gloves during application.
- Clean hands with soap water after application.
- Ensure adequate ventilation and avoid inhalation of vapours as some people are sensitive to resins and solvents.
- Avoid contact with skin / eyes. In case of unlikely contact with eyes, rinse immediately with plenty of clean water, then cleanse with soap and lukewarm water and seek medical advice.
- Do not use solvent to clean the contacted area.
- Prevent swallowing. In case of unlikely swallowing, 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
STP's Businesses
Waterproofing & Insulation
Road Surfacing
Pipeline Coating
Repairs & Rehabilitation
GARA (Grouts & Admixtures)
Other Powder Products
Sealant & Additives
Epoxy Flooring
Protective / Anti-Corrosive Coating
Other Products

Visit us at:  www.stp-ltd.com or Email at:  info@stp-ltd.com