



## PolyKote 1K AC

Single Component Anti Carbonation Protective / Decorative Coating

### DESCRIPTION

PolyKote 1K AC 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 PolyPrime AC as a primer and PolyKote 1K AC as a top coat. PolyPrime AC is a solvented silane siloxane based penetrative and reactive sealer which chemically reacts with the substrate and forms an 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.

### TECHNICAL DATA

Physical Appearance	Low Viscous Liquid	Specific Gravity	1.00 – 1.05
DFT	150 - 175 $\mu$ including primer	Coverage, L/m <sup>2</sup>	5, for two coats
Recoat Time at 25 °C	4 – 5 hrs	Application Temp	5 – 40 °C
CO <sub>2</sub> Diffusion Resistance at 80 $\mu$ DFT	Equivalent Air Layer Thickness:>70 mtr, Equivalent Concrete Thickness:177 mm	Bond Strength (ASTM D 4541)	> 1.5 Mpa
Permeability (As Per BS 1881), ml/m <sup>2</sup> /sec		PolyKote 1K AC	Control Concrete
<ul style="list-style-type: none"> <li>• 2 hrs</li> <li>• 6 hrs</li> <li>• 24 hrs</li> <li>• 48 hrs</li> </ul>		Nil Nil Nil 9.30	Nil 9.70 31.40 54.70
Water Absorption % (ASTM C 67) After 24 hrs		Nil	1.31
Depth of Carbonation in mm			
2 hrs		Nil	1.0
4 hrs		Nil	2.80
6 hrs		Nil	5.30
12 hrs		Nil	6.40
24 hrs		Nil	9.30



## **APPLICATIONS**

- Old and new concrete structures
- Unglazed bricks and clay tiles
- Terrazzo floors and walls
- Exterior masonry surfaces
- Bridges, dams, flyovers, elevated MRTS and marine structures
- Chimneys, cooling towers, silos, industrial buildings and power houses

## **ADVANTAGES**

- Excellent barrier to carbon dioxide, chloride ions, sulphates, oxygen and water
- Easy for application
- 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 and made even
- Ensure that surface is dry prior to application
- PolyKote 1K AC is 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 PolyPrime AC as per the coverage. Allow the primer to dry for 4 – 5 hrs till touch dry before coating
- Apply PolyKote 1K AC as per the coverage and allow it to dry for at least 4 -5 hrs before re- coating of the second coat
- Actual coverage depends upon surface texture and wastages.



## **CLEANING**

- Clean all tools immediately after use with xylene. Do not allow material to hardens

## **HEALTH AND SAFETY**

- Use mask, nose cover and hand gloves during application
- Clean hands with soap after application
- Ensure adequate ventilation and avoid inhalation of vapours as some people are sensitive to resins and solvents
- Avoid contact with skin / eye. In case of unlikely contact with skin / eyes, rinse immediately with plenty of clean water, then clean 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 Litre pack.

## **STORAGE**

Must be stored in original packing at ambient temperature, dry place under shed away from heat.

## **SHELF LIFE**

If stored in original unopened sealed under the above conditions, it has a shelf life of 12 months.