

1K Elastomeric Anti-Carbonation Protective Coating

DESCRIPTION

TIKI ANTICARB is single component ready to use water based (solvent free) cross linked Aliphatic Acrylic polymer elastomeric and breathable U.V resistant Anti-Carbonation protective coating for protecting exposed faces of reinforced and pre-stressed concrete super structure and sub-structures from aggressive action of atmospheric carbon-dioxide, chloride ions, sulphates and other deleterious elements.

TIKI ANTICARB has excellent anti-carbonation and water vapor diffusion property allowing the structure to breathe and hence does not undergo rupturing due to vapor pressure.

The elastomeric nature of **TIKI ANTICARB** ensures good crack bridging property under expansive/contractive movement in structure.

ADVANTAGES

- High resistance against CO₂ diffusion reducing the rate of carbonation.
- Water vapour permeable and Breathable.
- Excellent Adhesion to the substrate.
- Very good resistance against weathering, ageing and U.V rays.
- Elastomeric - Excellent Crack-Bridging property.
- Preventative protection for new as well as existing reinforced concrete structures exposed to aggressive environments and marine / coastal environment.
- Environmentally friendly (solvent free).
- Reduced tendency to dirt pick up and contamination.
- Good Algae / Fungal Resistance.
- Good Resistance to Freeze-Thaw cycles.
- Impermeable to water.

USES

For protecting new and existing concrete and masonry structure from water, atmospheric carbon-di-oxide, sulphur-di-oxide, oxides of nitrogen, chlorides, sulphates, and U.V radiation, the structure includes:

- Bridges and Flyovers.
- R.C.C Structures – Roof Decks, Balconies, Soffits, and Foundations.
- Subways and Underpasses.
- Chimneys and Silos.
- Tunnels and Underground Concrete Structures.
- Thin R.C.C Structures – Fins, Facades and others.

APPLICATION INSTRUCTIONS

CONCRETE SUBSTRATE CONDITIONS

- Age: At least 28 days
- Substrate Temperature: 5 to 35°C, at least 3°C above the Dew Point
- Relative Humidity: < 80%

SURFACE PREPARATION

Clean the surface using a high-pressure water jet, wire brushing, mechanical scraping, chiselling or any other suitable method. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes, algae, loose or flaking paintwork must be removed. Fill surface irregularities with the appropriate product.

The contents of the pail should be thoroughly mixed with a mechanical mixer to ensure product is completely homogenized before application. Prolonged storage may induce slight sedimentation and/or separation that must be re-homogenized.

PRIMING

TIKI ANTICARB has excellent adhesion to most types of concrete substrates without use of primers.

Nevertheless, testing before use is strongly advised.

Priming is recommended on porous substrates. Dilute 2 Parts of **TIKI ANTICARB** with 1 Part of Water by volume of clean water and apply by brush, roller or airless spray at a nominal rate of 6 to 8 m²/Kg., and allow to dry.

APPLICATION

Over the dry primed surface, apply **TIKI ANTICARB** with brush, roller, or airless spray @ 4 to 5 m²/Kg. per 1 coat or 2 coat (depending upon the required thickness) and allow to dry.

The application should provide 100 to 200 microns dry film thickness in two coats.

Ensure that the time interval between the coats is maintained between 2 to 72 hours.

On drying, the cured film of **TIKI ANTICARB** forms an elastomeric protective membrane.

APPLICATION DATA

Property	Values
Dry Film Thickness	200 to 225 microns in 2 coats
Drying Time	
Surface Dry	30 Minutes
Hard Dry	2 to 16 Hours
Overcoating Interval	>16 Hours
Coverage (depends on substrate porosity and roughness)	4 to 5 m ² /Kg. per 1 coat or 2 coats depending upon required thickness

PROPERTIES OF MATERIAL

Property	Values
Specific Gravity	1.25 ± 0.10
% Solid Content, by Weight	60 ± 5
pH	>8

PROPERTIES of CURED FILM

Property	Values
Adhesion with Concrete	>1 N/mm ²
Tensile Strength	>3 N/mm ²
Diffusion Resistant Co-efficient	1.58 x 10 ⁵ μ
Diffusion Resistance against Carbon-Di-Oxide (Equivalent Air-Layer Thickness S _D CO ₂)	Sd (R) = 72m
Diffusion Resistance against Water Vapor (Equivalent Air Layer Thickness S _D H ₂ O)	2.2m

CLEANING

Clean tools and equipment first with water, once dried, the cured film can only be removed mechanically.

SUPPLY

TIKI ANTICARB is supplied in 20 Kg., and 200 Kg. drums.

STORAGE

TIKI ANTICARB must be stored above 5°C. Store under the shed & protected from extremes of temperature, heat, direct sunlight. Once opened, use as soon as possible. The shelf life is 6 months in sealed unopened container.

SAFETY PRECAUTIONS

As with all chemical products, care should be taken during use and storage of **TIKI ANTICARB**. Use gloves, goggles and barrier cream. Avoid contact with skin. Ensure adequate ventilation during application. For further detail, refer to Material Safety Data Sheet.

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