

CWC®SMARTGUARD

Acrylic Polymer Based Elastomeric Heavy Duty Anti-Carbonation Coating

Description

CWC®SMARTGUARD is aliphatic acrylic polymer based elastomeric, anti-carbonation protective coating system. In addition to UV resistance acrylic polymer, **CWC®SMARTGUARD** is designed with proprietary additives to resist post growth of algae and fungus. The thixotropic nature of the coating helps to apply thick film to get desired film thickness (100-200 microns) with minimum no of coats.

Domains of Application

Used as anti-carbonation protective coating for bridge deck, under pass, building walls, etc. in all environments especially coastal areas. Also used as Waterproofing / protective coating of asbestos/ cement sheet roof and concrete/ plastered walls.

Method of Application

Surface Preparation

Prior to application of **CWC®SMARTGUARD**, all surfaces must be prepared properly to avoid failure. The surface shall be cleaned to remove all dust, foreign materials/loose particles or any deposits of contaminants, which could affect the bond between the original substrate and the **CWC®SMARTGUARD** system. This can be done by scarifying, grinding, water blasting, sand blasting, acid washing or any other approved method. Rectify depression / honey-comb, blow-holes (if any) in the surface, use **CWC®SMARTCRETE** mortar (1part **CWC®SMARTCRETE**, 2part cement, 4 part medium washed sand) or cement putty and leave it for at least 24 hours before application of **CWC®SMARTGUARD**/ Primer.

Treatment of Cracks

If there is any crack up to 2 mm, clean those cracks with vacuum cleaner to open cracks, and fill the opened groove with polymer mortar.

Application of Primer

Though **CWC®SMARTGUARD** adheres strongly with most of building materials like cement concrete, mortar, bricks, woods etc, use of **CWC®SMARTGUARD-P(Primer)** provide better performance of final coating system. Stir well the Primer and apply it with soft nylon brush, roller or airless spray equipment over the dry surface. Generally, one coat is sufficient. If the surface is too porous apply two coats of primer. Time gap between two coats should be 2-4 hours.

Indicative Characteristics

Appearance of dry film	White, Grey. Other colour may be available on request
Specific Gravity	1.5±0.1
Drying time at 30°C, RH 65%	12 hours
Solid content, % (W/W)	>60
% Elongation at 14 days, ASTM D 412	300 (minimum)
Tensile strength at 14 days, MPa ASTM D 412	1.5
Hardness Shore A, ASTM D 2240	>40
QUV Resistance, ASTM G 154, 1000 hours	No crack, No color change
Pull off Adhesion at 14 days, ASTM D 541, MPa	>1.5
Coverage (Theoretical)	2-2.5 m ² (depending on surface finish)
Full Cure, at 30°C, 60% RH	10 days
Fungi Resistance, ASTM G21	Passes test
Average DFT (two coats)	150-200 microns depending on surface condition and application method.
Water Absorption (24 hours), ASTM D 6083	<15%, Passes tests
Equivalent Air Layer Thickness EN 1062	200m (coating thickness 175 microns)
Carbon Dioxide Diffusion Co-efficient, EN 1062, cm ² /sec	7x10 ⁻⁸ (coating thickness 175 microns)
Carbon Dioxide Diffusion Resistance, microns, EN 1062	2.1x10 ⁶ (coating thickness 175microns)

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Application of CWC®SMARTGUARD

After the application primer coat allow it to reach touch dry for 2-4 hours. Stir **CWC®SMARTGUARD** to a homogeneous smooth consistency and apply it horizontally with soft nylon brush, roller or spray (Airless sprayer – GRACO SMART CONTROL 2.0) to a thickness of 150-200 microns (WFT) in single coat. Allow it to dry for approx. 2-4 hours. When the applied coat becomes sufficiently dry apply second coat vertically. Minimum Two coats are sufficient for general anti-carbonation (150 -300microns DFT) but for severe conditions, three or more coats are required to achieve desired results.

Advantages

- Easy application; can be applied by brush, roller or Spray at site.
- Elastomeric in nature; up to 2mm crack bridging capacity. UV Resistance- does not yellowing in sun rays exposure.
- Excellent resistance to carbon dioxide, acid rain, and alkali solution.
- Excellent resistance to dirt pick up.
- Excellent waterproofing property.
- Green product -No VOC (Volatile Organic Compound).

Shelf Life & Storage

12 months from the date of manufacturing when stored in un-opened, original sealed and dry condition at a temperature range from +5°C to 40°C

Packing

20 kg Plastic Bucket

Precautions

- Reinforcement rods and other sharp materials should not be dragged over the **CWC®SMARTGUARD** membrane, as this can puncture the same. **CWC®SMARTGUARD** shall always be used WITHOUT dilution.
- Do not apply coating thickness more than 300 microns in one go. For higher coating thickness apply multiple coats.
- There should not be any rain during and after application of final coating for at least 6-8 hours
- Not suitable for continuous immersion like basements, water tanks/reservoirs and any other liquid storage tanks.

Safety

- Wear hand gloves, safety shoes and safety goggles while using and handling the product.
- In case eyes or mouth are affected wash with plenty of clean water and seek medical treatment immediately.

Before use, refer to the Material Safety Data Sheet. The MSDS is available on www.cwcchemicals.com

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