

# 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

|  |  |
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| 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 <sup>2</sup> (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 <sup>2</sup> /sec | 7x10 <sup>-8</sup> (coating thickness 175 microns)                     |
| Carbon Dioxide Diffusion Resistance, EN 1062                         | 2.1x10 <sup>6</sup> (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 or roller at site.
- Excellent resistance to carbon dioxide, acid rain, and alkali solution.
- Excellent resistance to water
- Green product -No VOC (Volatile Organic Compound).
- Very good adhesion with concrete and masonry.

### Shelf Life & Storage

12 months from the date of manufacturing when stored in unopened, 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-P** membrane, as this can puncture the same. **CWC®SMARTGUARD-P** shall always be used WITHOUT dilution. 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](http://www.cwcchemicals.com)