

## PRODUCT DATA SHEET

# Sikagard<sup>®</sup>-300

(formerly MProtect 300)

HIGH BUILD, CRACK-BRIDGING, ELASTOMERIC, PROTECTIVE, AND WATERPROOF COATING FOR CONCRETE & MASONRY

### DESCRIPTION

Sikagard<sup>®</sup>-300 is a single component, high performance, acrylic resin based coating for long term protection of concrete & masonry from aggressive atmospheric gases such as, carbon dioxide, sulphur dioxide and chloride ions. It is available in standard colours. It can be made available in custom colours subject to prior agreement.

### USES

Sikagard<sup>®</sup>-300 is recommended for external protection of concrete to prevent ingress of atmospheric corrosive gases, wind driven rain, and water borne chlorides. Applications include protection of :

- Bridges, Flyovers, Aqueducts, viaducts
- Residential & Commercial Buildings
- Multi storey car parks & podiums
- Chimneys, cooling towers and silos.
- Jetties and berths.
- Overhead water tanks.
- Industrial buildings and power plants.

Sikagard<sup>®</sup>-300 is not recommended for application in areas likely to be submerged in water and on floors subjected to traffic

### CHARACTERISTICS / ADVANTAGES

- Anti-carbonation and sulphate coating - High resistance to CO<sub>2</sub> & SO<sub>2</sub> diffusion.
- Resistant to diffusion of chloride ions – suitable for marine applications.
- UV resistant – suitable for exposure.
- Resists water ingress and permeable to water vapour – suitable for exposure to splashes or wind driven rain
- Resists dirt pick up, and growth of fungus – suitable for use in the tropics
- Sikagard<sup>®</sup>-300 – copes with thermal movements of buildings.
- Washable - coating with excellent durability

### PRODUCT INFORMATION

|                                |  |
|--------------------------------|--|
| <b>Packaging</b>               | 25 kg  |
| <b>Shelf Life</b>              | 12 months  |
| <b>Storage Conditions</b>      | Store under cover, out of direct sunlight and protect from extremes of temperature. In tropical climates the product must be stored in an air conditioned environment. |
| <b>Density</b>                 | 1.35 ± 0.05 kg/ltr   |
| <b>Solid content by volume</b> | 46%  |

Consistency Thick Paste

## TECHNICAL INFORMATION

|  |  |                 |
|--|--|-----------------|
| Tensile Strength                       | > 2.5 MPa  | (ASTM D 638)    |
| Cross cut                              | Adhesion<br>4/5 (excellent)  | (AS 1580 408.2) |
| Service Temperature                    | 5°C to 40°C  |                 |
| Permeability to Water Vapour           | 26.0 g/m <sup>2</sup> /24 Hours  | (DIN 52615)     |
| Diffusion resistance to carbon dioxide | > 50m  |                 |
| Chloride Ion Diffusion Resistance      | 4.98 x 10 <sup>-10</sup> cm <sup>2</sup> /s                                    |                 |
| Behaviour after Artificial Weathering  | No color change or chalking (Appearance after 2000 hr. accelerated weathering) |                 |

## APPLICATION INFORMATION

|             |   |
|-------------|---|
| Consumption | Minimum recommended rate of application for Sikagard®-300 is 0.45 Kg/m <sup>2</sup> /coat.<br>Each pack of 25kg is sufficient for an area of 28 m <sup>2</sup> to achieve the recommended final dry film thickness of 300µ.<br>The coverage rate is strongly influenced by the roughness and porosity of the substrate. |
| Curing Time | Full cure : 7 Days  |
| Drying Time | Touch dry : 1 Hour at 25°C<br>Re-coatable: 4 Hours at 25°C  |

## BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

## FURTHER DOCUMENTS

### DFT at 0.9 Kg/m<sup>2</sup>

300 µ

### Elongation

> 300% (ASTM D 638)

### Dirt pickup

1, (0 = 'no dirt retained') (AS 1580 481.1.4, 12 months), on a scale of 0-5

### Reduction in chloride ion ingress

97% at 28 Days

## ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

## SUBSTRATE QUALITY

New masonry and concrete should be at least 14 days old before treatment and with moisture level in substrate below 7% by volume.

## SUBSTRATE PREPARATION

Correct substrate preparation is critical for optimum performance. The surface to be treated must be thoroughly cleaned. Remove all traces of formwork, release agent, grease, efflorescence, laitance, algae, or other contaminant that may prevent proper adhesion. Remove organic materials by scraping, brushing or high pressure water cleaning. Spores must be treated with a suitable fungicide sterilizing agent and carefully rinsed.

On non-decorated concrete surface containing blow holes and/or minor irregularities, and on some rough rendered or dashed surface, it is advantageous to use SikaEmaco® N 5100 to close the surface, thus preventing the possibility of pinholes occurring. Cracks wider than hairline should be patched using Sikadur®-1438 or sealed using acrylic caulk before treatment.

## SUBSTRATE QUALITY / PRE-TREATMENT

### Priming

Prime the surface using Sikalastic®-500 Acrylic Primer AP.

Allow the primer to dry for 2-3 hr (at temp. >25°C) before applying Sikagard®-300. At lower temperatures, allow a longer time to dry.

### MIXING

Stir (do not dilute) to obtain a uniform mixture before use.

### APPLICATION

Apply Sikagard®-300 in one coat using airless spray to achieve a wet film thickness of 650µ or in two coats each of 325µ WFT using roller or brush, with the second coat applied 2 – 4hrs after the first and at right angle to it. The prepared substrate must be air-dry when the first coat is applied. Where a textured finish is required use a medium nap roller to apply the product and over roll with a textured roller to give the desired finish in one direction only.

Only apply Sikagard®-300 when the ambient temperature and substrate temperature are at least 5°C and will not fall below 5°C with-in 24 hours. To avoid condensation which influences the adhesion negatively, surface temperature during application should be at least 3°C higher than the dew point.

## LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

## LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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### Product Data Sheet

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