

# PRODUCT DATA SHEET

## Sikagard®-670 W

WATER DISPERSED, ACRYLIC, PROTECTIVE, ANTI-CARBONATION COATING

### PRODUCT DESCRIPTION

Sikagard®-670 W is a water dispersed colored, acrylic, protective coating. Sikagard®-670 W prevents moisture ingress, is water vapor permeable and provides an excellent carbonation barrier.

### USES

Above grade, exterior application on buildings or civil engineering structures. It is designed to aesthetically enhance, protect and add superior light reflectance to concrete and other masonry substrates subject to normal hydrothermal movement.

### CHARACTERISTICS / ADVANTAGES

- Easy to apply
- Extremely resistant to dirt pick-up and mildew
- Excellent resistance to carbon dioxide and other aggressive gas diffusion
- Excellent UV resistance
- Excellent weathering resistance
- Prevents ingress of chlorides
- Cost effective protection
- Vapor permeable; allows each way water vapor diffusion (breathable)
- High Reflectance Value

### PRODUCT INFORMATION

<b>Packaging</b>	5 gal. (19 L), re-closable plastic pails	
<b>Appearance / Color</b>	463 standard colors. Custom color-matching available	
<b>Shelf Life</b>	12 months in original, unopened container	
<b>Storage Conditions</b>	Store dry at 40–95 °F (4–35 °C). Condition material to 60–75 °F (15–24 °C) before using. Protect from freezing. If frozen, discard	
<b>Solid content by weight</b>	60 %	
<b>Solid content by volume</b>	46 %	
<b>Reaction to Fire</b>	Flame Spread: 0 Smoke Development: 5 Class Rating: A	Flame Spread and Smoke Development (ASTM E-84-94)
<b>UV Exposure</b>	91 %	Light Reflectance Value (ASTM E-1164)
<b>Resistance to Weathering</b>	Excellent, no chalking or cracking (2000 hours)	(ASTM G-26)

<b>Permeability to Water Vapor</b>	17.9 Perms	(ASTM E-96)
<b>Diffusion Resistance to Water Vapor</b>	$\mu$ - value H <sub>2</sub> O (diffusion coefficient) = 3,140 SdH <sub>2</sub> O (equivalent air thickness) = 1.3 ft. (0.4 m)	(at 5 mils. = 120 microns dry film thickness)
<b>Permeability to CO<sub>2</sub></b>	$\mu$ - value CO <sub>2</sub> (diffusion coefficient) = 1,100,000 SdCO <sub>2</sub> (equivalent air thickness) = 433 ft. (132 m) Equivalent concrete thickness (Sc) = approximately 13 in. (33 cm)	(at 5 mils. = 120 microns dry film thickness)

## APPLICATION INFORMATION

<b>Coverage</b>	Theoretical per coat: 300 ft <sup>2</sup> /gal. Wet film thickness: 5 mils. Dry film thickness: 2.5 mils. Normal coating system is two coats minimum at a total nominal dry film thickness of 5 mils.		
	Consumption is obviously dependent on substrate. In addition, allowance must be made for surface profile, variations in applied film thickness, loss and waste. A third coat may be necessary where opacity is reduced through thinning of the first coat, on dense substrates or with very bright color shades.		
<b>Pot Life</b>	Indefinite, provided proper care is taken in protecting the system from moisture, freezing, contamination, or evaporation.		
<b>Waiting / Recoat Times</b>	<b>Between Coats</b>	<b>Rain Resistant After</b>	<b>Final Drying</b>
	45 °F (7 °C) approx. 90 min.	approx. 5 hours	approx. 24 hours
	68 °F (20 °C) approx. 30 min.	approx. 1 hour	approx. 4 hours
	85 °F (30 °C) approx. 20 min.	approx. 40 min.	approx. 3 hours

## APPLICATION INSTRUCTIONS

### SURFACE PREPARATION

All surfaces to be coated must be clean, dry, laitance free, sound and frost-free with curing compound residues and any other contaminants removed. An open textured sandpaper-like surface is ideal (CSP-3). Where necessary, surfaces should be prepared mechanically by blast cleaning or high pressure waterjetting. Allow adequate time for drying. Bugholes, cracks or irregularities of substrate should be filled and leveled with SikaTop, Sika MonoTop leveling mortar or Sikagard Surface Fillers as appropriate.

### Priming

All porous areas or concrete with excessive porosity should be primed using Sikagard 552W Primer or SikaLatex R to allow easy application of Sikagard®-670 W.

### APPLICATION

#### Mixing

Stir thoroughly to ensure uniformity using a low speed (400-600 rpm) drill and Sika paddle. To minimize color variation when using multiple batches, blend two batches of Sikagard®-670 W. Use one pail and maintain the second pail to repeat this procedure (boxing) for the

entire application.

Any areas of glass or other surfaces should be masked. Recommended application temperatures (ambient and substrate) 45–95 °F (5–35 °C). Sikagard®-670 W can be applied by brush, roller, or spray over entire area moving in one direction. Allow a minimum of 20-90 minutes prior to re-coating. At lower temperatures and high humidity, waiting time will be prolonged. At higher temperatures, work carefully to maintain a 'wet' edge. Sikagard®-670 W is usually applied using a short nap lambs wool roller. Sikagard®-670 W is particularly suitable for application by spray using the most standard spray painting equipment. As with all coatings, jobsite mock-ups should always be completed to confirm acceptability of workmanship and material.

**Note:** To achieve a dry film thickness of 4-6 mils. (0.1–0.15 mm), two uniform coats should be anticipated. On porous substrates, a third coat may be necessary and on particularly dense substrates, the first coat should be thinned 10 % by volume with water. A third coat may then be needed for opacity.

### LIMITATIONS

- Do not use over moving cracks.
- Substrate must be dry prior to the application.

- Minimum age of concrete prior to the application is 14 days, depending on curing and drying conditions (moisture content must be below 5 %).
- Minimum age of SikaTop or Sika MonoTop thi layer renderings is 3 days prior to the application of 670W (moisture content must be below 5 %).
- Sikagard®-670 W should not be applied at relative humidities greater than 90 %, or if rain is forecast
- within the specified rain resistance period.
- Allow sufficient time for the substrate to dry after rain or other inclement conditions.
- Product must be protected from freezing. If frozen, discard.
- Not designed for use as a vehicular traffic bearing surface.
- During application, regular monitoring of wet film thickness and material consumption is advised to ensure that the correct layer thickness is achieved.
- When overcoating existing coatings, compatibility and adhesion testing is recommended.
- Do not store Sikagard®-670 W in direct sunlight for prolonged periods.

## BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

## OTHER RESTRICTIONS

See Legal Disclaimer.

## ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

## LEGAL DISCLAIMER

- **KEEP CONTAINER TIGHTLY CLOSED**
- **KEEP OUT OF REACH OF CHILDREN**
- **NOT FOR INTERNAL CONSUMPTION**
- **FOR INDUSTRIAL USE ONLY**
- **FOR PROFESSIONAL USE ONLY**

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