



PRODUCT DATA SHEET

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CONCRETE AND MASONRY COATINGS

Sikagard®-670 W

WATER-DISPERSED, ACRYLIC-BASED, PROTECTIVE AND DECORATIVE ANTI-CARBONATION COATING

Description	Sikagard®-670 W is a water-dispersed, acrylic-based protective and decorative coating. It prevents moisture ingress, is water vapour permeable and provides an excellent carbonation barrier. Sikagard®-670 W may be used in conjunction with Sikagard® Elastic Base Coat where a textured undercoat and finish is required and/or with Sikagard®-552 W Aqua Primer where an excessively porous or chalky surface is to be coated.
Where to Use	<ul style="list-style-type: none"> Above grade, exterior application on buildings or civil engineering structures. Designed to aesthetically enhance and protect concrete and other masonry substrates subject to normal hydrothermal, (non crack-inducing) movement.
Advantages	<ul style="list-style-type: none"> Easy to apply, typically self-priming and cost-effective. Extremely resistant to dirt pick-up and mildew. Excellent resistance to carbon dioxide and other aggressive gas diffusion. Prevents ingress of chlorides and water-borne salts. Vapour permeable; allows two-way water vapour diffusion (breathable). Excellent UV and weathering resistance. Low-VOC and water-based coating. Ministry of Transport Québec acceptance.

Technical Data

Packaging	18.9 L (5 US gal.) resealable pails	
Colour	463 standard colours. Custom colour-matching available.	
Yield	<p>Sikagard®-670 W: 7.4 m²/L (300 ft²/US gal.) per coat. Normal coating system is two (2) coats, to a total dry film thickness of 5 mils. Wet film thickness necessary to achieve this is 5 mils per coat. A third coat may be necessary where opacity is reduced on dark substrates or with very bright colours.</p> <p>Sikagard® Elastic Base Coat: 2.5 m²/L(101 ft²/US gal.) per coat. Sikagard®-552 W Aqua Primer: 7 - 10 m²/L (285 - 407 ft²/US gal.) per coat. Coverage rates and material consumption are dependent on porosity of substrate. In addition, allowance must be made for surface profile, variation in applied film thickness, loss and waste. Test sections are recommended.</p>	
Shelf Life	2 years minimum in original, unopened container. Store dry at temperatures between 4 and 35 °C (40 and 95 °F). Condition material between 15 and 24 °C (60 and 75 °F) before using. Protect from freezing. If frozen, discard.	
Application Temperature (ambient and substrate)	Minimum	5 °C (40 °F)
	Maximum	35 °C (95 °F)
Waiting and Drying Times		
Between Coats	Rain Resistant After	Final Drying
7 °C (45 °F) approx. 90 minutes	approx. 5 hours	approx. 24 hours
20 °C (68 °F) approx. 30 minutes	approx. 1 hour	approx. 4 hours
30 °C (85 °F) approx. 20 minutes	approx. 40 minutes	approx. 3 hours
Properties at 23 °C (73 °F) and 50 % R.H.		
Solids Content Approx.	by weight: 60 %	by volume: 46 %
Water Vapour Diffusion (at 5 mils = 120 microns dry film thickness)		
μ - value H ₂ O (diffusion coefficient) = 3140		
SdH ₂ O (equivalent air thickness) = 0.4 m (1.3 ft)		
Carbon Dioxide Diffusion (at 5 mils = 120 microns dry film thickness)		
μ - value CO ₂ (diffusion coefficient) = 1 100 000		
SdCO ₂ (equivalent air thickness) = 132 m (433 ft)		
Equivalent concrete thickness (Sc) = approx. 33 cm (13 in)		
Flame Spread and Smoke Development ASTM E84-94		
Flame Spread: 0	Smoke Development: 5	Class Rating: A
Weathering ASTM G26	2000 hours	Excellent, no chalking or cracking.
VOC Content	47,8 g/L (all colours)	
Chemical Resistance	Consult Sika Canada	

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.

HOW TO USE

Surface Preparation	All surfaces to be coated must be dry, clean, sound, and frost-free with curing compound residues, laitance and any other contaminants detrimental to bond removed. An open textured, sandpaper-like surface (ICRI / CSP 3) is ideal. Where necessary, surfaces should be prepared mechanically by blast cleaning or high pressure water-jetting. Allow adequate time for drying. Bug holes, cracks or irregularities in the substrate should be filled and levelled with SikaTop®, SikaRepair® or Sika MonoTop® mortars as appropriate.
Priming	All chalky or excessively porous substrates should be primed using Sikagard®-552 W Aqua Primer to allow easy application, reduce consumption, assist in achieving the required film thicknesses and optimise the adhesion of Sikagard®-670 W. Site trials should be carried out to determine the need for Sikagard®-552 W Aqua Primer.
Mixing	Stir thoroughly to ensure uniformity using a slow-speed (300 - 450 rpm) drill and <i>Jiffy</i> -style paddle. Stir until a uniform consistency has been achieved (3 to 5 minutes).
Application	Any areas of glass or other such surfaces should be masked to protect against contact with primer, undercoat or finish. Recommended application temperatures (ambient and substrate) is 5 to 35 °C (45 to 95 °F). Sikagard®-552 W Aqua Primer, where required, can be applied by brush, roller or spray (brushing provides more even and pore-free coats and better penetration). Sikagard®-670 W can be applied by brush, roller or spray, working in one direction. Allow previous coats to become touch dry prior to overcoating. At lower temperatures and/or high humidity, waiting time will be prolonged. At higher temperatures, work carefully to maintain a “wet” edge. When applied by roller, use a short nap lamb’s wool roller. Sikagard®-670 W is particularly suitable for application by spray using suitable spray painting equipment. Note: As with all coatings, jobsite trials are recommended to establish system components, including need for priming, suitability of application equipment, acceptability of workmanship, nature of finish and colour selection.
Clean Up	Collect and contain spill with absorbent product. Discard in accordance with applicable regulations. Clean tools and brushes with water. Wash soiled hands and skin thoroughly in hot soapy water or use Sika® Hand Cleaner towels.
Limitations	<ul style="list-style-type: none">▪ Not designed for use as a traffic-bearing surface or as a roofing system.▪ Do not use over moving cracks, without Sikagard® Elastic Base Coat.▪ 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®, SikaRepair® or Sika MonoTop® mortars prior to application is three (3) days, depending on curing and drying conditions (moisture content must be below 5 %).▪ Do not store Sikagard®-670 W in direct sunlight for prolonged periods.▪ Sikagard®-670 W should not be applied at a relative humidity of 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.▪ Ensure any primers, first or intermediate coats are thoroughly dry before over coating to prevent formation of bubbles and blisters, particularly in warm weather.▪ During application, regular monitoring of wet film thickness and material consumption is advised to ensure that the correct layer thickness is achieved.▪ When over coating existing coatings, compatibility and adhesion testing is recommended.
Health and Safety Information	For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent SAFETY DATA SHEET containing physical, ecological, toxicological and other safety-related data. KEEP OUT OF REACH OF CHILDREN FOR INDUSTRIAL USE ONLY

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, within their shelflife. 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 recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. 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 or may be downloaded from our website at: www.sika.ca

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