Sikagard® 550W Elastocolor

Description Sikagard® 550W Elastocolor is an elastomeric, crack-bridging, anti-carbonation, acrylic protective coating. Sikagard® 550W Elastocolor provides protection to reinforced concrete from the ingress of carbon dioxide and other aggressive gasses. It offers high resistance to chlorides and other waterborne salts and excellent UV light resistance. Sikagard® 550W Elastocolor will not act as a vapor barrier and will enhance the appearance of the structure.

Where to Use

Protective, crack-bridging coating for concrete, mortar, stucco, masonry, and exterior finishing systems subject to cracking/dynamic movement. For use on building and civil engineering structures subject to cracking or as the top coat in complete repair and protection systems.

Advantages

- Can bridge dynamically moving cracks.
- Excellent carbonation barrier.
- Vapor permeable.
- Provides resistance to weathering and frost.
- Crack bridging properties maintained at low temperatures.
- Excellent long term UV light resistance.
- Can be applied by brush, roller, or airless spray.
- Good color stability.
- Extremely resistant to dirt pick up and mildew.
- Non-flammable as a system.
- Easily maintained silk finish.

Coverage

Theoretical yield per coat: 100 ft²/gal/coat. Recommended 'wet' film thickness: 16 mils/coat. Recommended 'dry' film thickness: 8 mils/coat. Normal coating system is two coats at a total dry film thickness of 16 mils. Consumption is dependent on porosity of substrate. In addition, allowance must be made for surface profile, unavoidable variation in applied film thickness, loss and waste. Sikagard® Elastic Base Coat can be used as a first coat in a two coat system of Sikagard® 550W Elastocolor.

Packaging

5 gal. Hobbock.

Typical 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.

Shelf Life 2 years in original unopened container.

Storage Conditions Store dry at 40°-95°F (4°-35°C) Condition material to 60°-75°F (15°-25° C)

before using. Protect from freezing. If frozen discard.

Colors 469 standard colors. Custom color-matching available.

Pot Life Indefinite, provided proper care is taken in protecting the system from mois-

ture, freezing, contamination, or evaporation.

 Solids Content
 by weight
 by volume

 Smooth 550W
 62%
 55%

 Sikagard® 552W
 20%
 17%

Tensile Properties (ASTM D-412 modified after 21 days cure)

Tensile Strength 200 psi

Elongation at Break 625% at 73°F (23°C)

Tensile Strength at 0°F (-18°C) 1100 psi Elongation at Break at 0°F (-18°C) 225%

Waiting Time (between coats) and Curing Rates 45°F (8°C) 68°F (20°C) 85°F (30°C) Sikagard® 552W Primer+Sikagard® 550W 24 hours 12 hours 6 hours Sikagard® 550W 12 hours 8 hours 6 hours Rain resistant (at 75% R.H.) 24 hours 4 hours 2 hours

(Note: Over coating old coatings will increase the waiting times by 100%)

Water Vapor Diffusion (at 16 mils = 400 microns dry film thickness)

 μ - value H₂O (diffusion coefficient) = 2,146

SdH₂O (equivalent air thickness) = 2.6 ft. (0.8 m)

Carbon dioxide diffusion (at 16 mils = 400 microns dry film thickness)

*After 2,000 hours

 μ - value CO_2 (diffusion coefficient) = 214,000 R (equivalent air thickness) = 299 ft. (91 m) Sc (Equivalent concrete thickness) = 9 inches (23 cm)

*accelerated weathering

Crack-Bridging (at 16 mils = 400 microns DFT)

Static (at -4°F/-20°C) 30 mils (0.75 mm)

Dynamic>1000 cycles (at -4°F/-20°C) 12 mils (0.3 mm)

Moisture Vapor Permeability (ASTM E-96) 14.5 Perms

Sika®

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Resistance to Wind Driven Rain (TT-C-555B) No passage of water through the coating

Flame Spread and Smoke Development (ASTM E-84-94)

Flame Spread: 5 Smoke Development: 5 Class Rating: A

Weathering (ASTM G-23) 10.000 hours Excellent, no chalking or cracking

How to Use

Surface preparation

All surfaces to be coated must be dry, clean, sound, and frost free with curing compound residues and any other foreign matter removed. An open textured sandpaper like surface is ideal (CSP-3). Where necessary, surfaces should be prepared mechanically by blast cleaning or high speed pressure waterjetting. Allow adequate time for drying. Bug holes, cracks or irregularities of substrate should be filled and leveled with SikaTop®, SikaRepair®, SikaQuick® or acrylic surface fillers as appropriate. Cracks 1/32" or greater should be routed and sealed with a polyurethane sealant before coating.

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® 550W Elastocolor.

Mixing

Stir the coating to ensure uniformity using a slow speed (400-600 rpm) drill and 1/2" jiffy style mixing paddle. To minimize color variation when using multiple units, blend two pails of Sikagard® 550W Elastocolor. Use one pail and maintain the second pail to repeat this procedure (boxing) for the entire application.

Application

Any areas of glass or other surfaces should be masked. Recommended application temperatures (ambient and substrate) 45°-95°F (7°-35°C). Sikagard® 550W Elastocolor can be applied by brush, roller, or spray over entire area moving in one direction. Allow a minimum of two hours 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. As with all coatings, job site mock-ups should always be completed to confirm acceptability of workmanship, material and aesthetics.

NOTE: To achieve a dry film thickness of 16 mils, two coats should be anticipated. For maximum adhesion, (especially on porous substrates) the use of Sikagard® 552W is recommended. Sikagard® 552W primer can be applied by brush or roller. Brushing provides more even and pore free coats and better penetration.

Limitations

- Not designed for use as a traffic bearing surface.
- Substrates must be dry prior to application.
- Minimum age of concrete prior to application is 14 days, depending on curing and drying conditions (moisture content must be below 5%).
- Minimum age of SikaTop®, SikaRepair®, or SikaQuick® prior to application is three days, depending on curing and drying conditions (moisture content must be below 5%).
- Allow sufficient time for substrate to dry after rain or other inclement conditions.
- Protect from freezing. If frozen, discard.
- Sikagard® 550W Elastocolor should not be applied at relative humidity greater than 90%, or if rain is forecast within the specified rain resistance period.
- Maximum crack width 1/32".
- During application, regular monitoring of the 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.
- When over-coating Sikaflex® sealants, a prime coat of Sikagard® 550W Elastocolor Accent Base Coat may be necessary over the sealant to minimize dirt pick up on cured coating.
- Do not store Sikagard® 550W Elastocolor in direct sunlight for prolonged periods.
- Strong winds can cause shrinkage if material is applied at lower temperatures.
- Ensure that the primer is thoroughly dry before over-coating to prevent formation of bubbles and blisters, particularly in warmer weather.
- Not recommended for roofing.

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Sika Corporation 201 Polito Avenue Lyndhurst, NJ 07071 Phone: 800-933-7452 Fax: 201-933-6225

Sika Canada Inc. 601 Delmar Avenue Pointe Claire Quebec H9R 4A9

Sika Mexicana S.A. de C.V. Carretera Libre Celaya Km. 8.5 Fracc. Industrial Balvanera Corregidora, Queretaro Phone: 52 442 2385800

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hone: 514-697-2610 Fax: 514-694-2792 Fax: 52 442 2250537

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