

K A U F M A N

PRODUCT
INFORMATION

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SilaneSeal 40

Description

SilaneSeal 40 is a clear, penetrating, breathable water repellent for use on exterior above-grade concrete, brick masonry, concrete masonry units and some natural stones. SilaneSeal 40 will penetrate into the surface and will bond chemically to the substrate, resulting in permanent attachment of the water repellent molecule.

SilaneSeal 40 is not a coating and as a result will not discolor or change the surface appearance in anyway. By reducing the amount of water entering the substrate, SilaneSeal 40 will reduce the intrusion of waterborne contaminants such as deicing chemicals, salt, and dirt and will reduce the deteriorating effects of these contaminants, such as rebar corrosion, spalling, scaling, efflorescence, leaching and staining.

Uses

SilaneSeal 40 is ideal for use on concrete to protect the reinforcing steel from corrosion due to the effects of water, deicing salts, and other waterborne chemicals. For use on brick masonry to protect against the ingress of wind-driven rain. For use on concrete pavement for highways, parking decks and airport runways, to reduce scaling due to deicing chemicals. SilaneSeal will reduce the effects of mildew, efflorescence, and stains on vertical concrete and masonry building surfaces while imparting water repellency to a substrate for an extended time.

Advantages

- SilaneSeal 40 is an isobutyltrialkoxysilane in an alcohol carrier.
- Deep penetration into the substrate
- No window masking needed
- Meets all Federal EPA VOC Laws
- Ideal for concrete, masonry, & stone
- High resistance to rain
- Excellent resistance to chloride ion ingress
- 100% moisture vapor transmission
- Reduced efflorescence
- Resistant to alkali attack
- No change in surface appearance
- Long service life

Physical Properties

Color:	Water White
Active Substance:	isobutyltrialkoxysilane
Active Content:	>50% by weight
Solvent	Denatured Ethyl Alcohol
Flash Point	54°F
Density	7.0 lbs./gallon
VOC	590 grams/liter
HDT	110°F

NCHRP #244 @ 200 ft²/gl.

Series II	86% reduction in water absorption
Series II	87% reduction in water absorption
Series IV	99% reduction in water absorption

Deicer Scaling (ASTM C-672)

100 Cycles 0+ Rating in Non-Air-Entrained Concrete

Skid Resistance (ASTM E303)

Dry Surface	No Change
Wet Surface	No Change

Alberta DOT Penetrating Sealers, Type 1b

Initial Water Repellency	84.3%
After Abrasion	85.1%

Water Permeance of Masonry (ASTM E-514)

Untreated Leakage	5.5 l/hr (1.5 gl/hr)
Treated Leakage	0.0 l/hr (0.0 gl/hr)
Reduction in Leakage	100%

Water Absorption of Brick (ASTM C-67)

24 Hours	98% effective
5 Days	91% effective

Water Vapor Transmission (ASTM D-1653)

75.8 g/ft ² /24 Hours	100% breathable
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Packaging

5.00 gallon pails
55.00 gallon drums

Directions

Concrete must be allowed to cure for a minimum of 28 days. All repointing must be completed and allowed to cure for at least 3 days. Concrete repair and replacement must be completed prior to application of SilaneSeal 40. Patching materials, caulking, sealing materials and traffic paint must be fully cured before applying SilaneSeal 40.

All surfaces must be cleaned to remove all traces of dirt, dust, efflorescence, mold, salt, grease, oil, asphalt, laitance, curing compounds, paint, coatings, and other foreign materials.

Acceptable surface cleaning methods include shotblasting, sandblasting, water-blasting, and using chemical cleaners.

SilaneSeal 40 should be applied using low-pressure (15 to 25 psi) pumping equipment with a wet fan type spray nozzle. Alternate methods include using either a power roller with a 1" nap or a brush. Do not alter or dilute the material. Do not apply to a wet or damp substrate. A test patch should be applied to the substrate to verify coverage rate and application conditions.

On vertical surfaces, apply SilaneSeal 40 in a flooding application from the bottom up, so the material runs down 6 to 8 inches below the spray pattern. On horizontal surfaces, the liquid material should pond on the surface for at least 5 seconds before being absorbed. Coverage rates on horizontal concrete surfaces are typically between 150 and 250 ft²/gal. Coverage rates on vertical surfaces depend on the type of material to be treated. Your Kaufman Products representative can give an exact coverage rate for your particular project. Please refer to our technical document called "*Recommended Field Procedures for SilaneSeal*" for more detailed information.

Precautions

SilaneSeal 40 is a flammable liquid and should be kept away from heat, sparks, open flame, and other sources of ignition. SilaneSeal 40 containers should be kept closed when not in use and should be stored at temperatures between 0°F (-8°C) and 120°F (50°C), away from rain and standing water. When working in an enclosed area, an air respirator should be used. Please refer to the Safety Data Sheet for more detailed information.

Limitations

Not intended for below-grade waterproofing. Should not be applied if the surface temperature is below 20°F (-7°C) or above 100°F (40°C), if rain is expected within 2 hours following application, or if high winds or other conditions prevent proper application. If rain has preceded the application, the surface should be allowed to dry for at least 24 hours. Caution should be taken with specialty coated glass, asphaltic materials, and plastic windows. Check compatibility before application. Shrubbery and plant life should be protected from overspray.

Technical Information

The reported test results were achieved under laboratory conditions. Statistical variations will occur based upon mixing methods, temperature & humidity, test methodology, site conditions, curing conditions, application methods, and equipment.

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