KAUFMAN

PRODUCT INFORMATION

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SilaneSeal WB 10

Description

SilaneSeal WB 10 is a clear, penetrating, waterborne, vapor-permeable water repellent for use on concrete, brick, concrete masonry units, and some natural stone. SilaneSeal WB 10 is low-VOC silane and siloxane emulsion that is formulated to reduce the penetration of water and other contaminants by chemically bonding with siliceous materials within a substrate to form a permanent attachment to the water repellent molecule. This reaction can help to prevent common issues such as premature deterioration, efflorescence, leaching, acid rain deterioration, scaling, dirt buildup, staining, corrosion of reinforcing steel, and mildew.

Surfaces treated with SilaneSeal WB 10 remain fully breathable because the natural vapor transmission is not affected. This reduces problems caused by entrapped moisture, such as blushing of the sealer and freeze-thaw damage to the masonry.

SilaneSeal WB 10 is especially well suited for applications where solvent-borne products are not acceptable. SilaneSeal WB 10 meets the applicable VOC requirements in all fifty states, including the OTC, LADCO, SCAQMD, and the EPA.

Uses

SilaneSeal WB 10 protects concrete from the deleterious effects of water, deicing salts, and other water-borne contaminants. SilaneSeal WB 10 will help to keep concrete and other substrates such as stucco, sandstone, terracotta, hand molded bricks, and some natural stones clean by reducing the amount of dirt and pollutants that may be absorbed. SilaneSeal WB 10 will also help to prevent moisture absorption into brick masonry and is particularly effective with single wythe wall construction. In addition, SilaneSeal WB 10 will protect concrete masonry units (medium to normal weight split face, fluted, or ground faced blocks) from the ingress of wind-driven rain.

Advantages

SilaneSeal WB 10 is a silane and siloxane mixture in an emulsion system. SilaneSeal WB 10 is ready-to-use, and does not require any blending with oils, silicones, stearates, or acrylates into the system prior to use.

SilaneSeal WB 10 is chemically engineered to provide a high level of surface beading with penetration to protect against the effects of wind-

driven rain. The internal chemical reaction creates a hydrophobic layer of protection within the substrate, which promotes a long service life. Furthermore, SilaneSeal WB 10 is eligible for Leadership in Energy & Environmental Design (LEED) credits for both new and existing construction projects.

The main benefits of the product are:

- Non-flammable
- Reduced efflorescence
- Breathable system
- Good penetration into substrate
- No change in surface appearance
- High resistance to alkali attack
- Long service life
- Keeps substrates cleaner

Technical Information

SilaneSeal WB 10 is a silane & siloxane emulsion

Color Milky White
Active Substance Silane-Siloxane

 Active Content
 10%

 Carrier
 Water

 VOC
 90 g/l max.

 Flash Point
 >200°F

 Density
 8.34 lbs/gal

Test Data

Water Absorption Concrete Masonry Units (ASTM C-140)

24 hour submersion test 97.3% Effective

Brick and Structural Clay Tile, Part 7 Absorption (ASTM C-67)

24 hour submersion test 98.1% Effective

Water Absorption of Concrete (ASTM C-642)
24 hours 0.49 %
48 hours 0.68 %

Deicer Scaling (ASTM C-672)60 Cycles 0 rating (Non-air-entrained concrete)

Coatings (ASTM D-1653)

Moisture Vapor Permeability of Organic

64 grams/ft²/24 hours 92% breathability

Accelerated Weathering (TT-C-5558)
2,500 hours
No Change

Water Permeance of Masonry (ASTM E-514)

Untreated Leakage 5.50 l/hr.
Treated Leakage 0.0 l/hr.
Reduction in Leakage 100%

Packaging

1 gallon jugs 5 gallon pails 55 gallon drums

Directions

Concrete must be allowed to cure for a minimum of 28 days. All patching and/or re-pointing must be completed and allowed to cure for at least 3 days. Concrete repair and replacement must be completed prior to application of SilaneSeal WB 10. Patching materials, caulking, sealing materials and traffic paint must be fully cured before applying SilaneSeal WB 10.

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. Check with your Kaufman Products representative to verify that surface preparation is adequate.

SilaneSeal WB 10 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.

Substrate, air, and product temperatures shall be between 40°F and 100°F (5°C and 38°C) during application. Do not apply product if temperatures are expected to fall below 40°F (5°C) within 12 hours after application. Do not apply material if rain is predicted within 4 hours after application. On vertical surfaces, apply SilaneSeal WB 10 using a flooding application, from the bottom up so the material runs down 6 to 8 inches below the spray pattern. On horizontal surfaces, SilaneSeal WB 10 should pond on the surface for at least 5 seconds prior to being absorbed. Coverage rates vary based upon the substrate to which SilaneSeal WB 10 is applied.

Protect glass, metal, plastic, and other nonporous substrates from overspray. SilaneSeal WB 10 will not etch glass but will leave a residue on nonporous surfaces. SilaneSeal WB 10 should not darken or discolor the substrate if used at the recommended coverage rates, but due to variations in substrate porosity and environmental conditions, applying a test patch is advised to verify desired results.

Limitations

Not intended for below-grade waterproofing. Will leave a residue on nonporous materials such as glass, metal, and painted surfaces. Shrubbery and plant life should be protected from overspray.

Should not be applied if the surface temperatures are below 40°F or above 100°F (5°C or above 40°C), if rain is expected within 4 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.

Precautions

SilaneSeal WB 10 product containers should be kept closed when not in use and should be stored at temperatures between 35°F and 100°F (2°C and 40°C), away from rain and standing water. Protect product from freezing. Keep off asphalt and bituminous materials. Please read the complete safety data sheet for more detailed information.

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.