

K A U F M A N

PRODUCT
INFORMATION

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SilaneSeal WB 40

Description

SilaneSeal WB 40 A clear, penetrating, waterborne, breathable water repellent for use on concrete. A ready-to-use, low-VOC silane emulsion that reduces the ingress of water and waterborne contaminants that cause premature deterioration of the substrate. SilaneSeal WB 40 will penetrate the substrate and chemically bond with silica to form a permanent attachment of the water-repellent molecule.

SilaneSeal WB 40 water repellent is especially suited for applications when solvent borne products are not acceptable, such as in states that have VOC regulations for AIM coatings. SilaneSeal WB 40 meets most national and state VOC regulations including both OTC and LADCO.

By preventing water and waterborne contaminants from entering the substrate, SilaneSeal WB 40 reduces such problems such as efflorescence, leaching, acid rain, scaling, deterioration, dirt buildup, staining, alkali attack, corrosion of reinforcing steel and mildew. Treated surfaces are fully breathable because their natural moisture vapor transmission is not affected. This will reduce problems that entrapped moisture can cause, including blushing of the sealer and freeze-thaw damage to the concrete.

Uses

SilaneSeal WB 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. SilaneSeal WB 40 will protect concrete from deicing chemicals, scaling, and freeze-thaw related damage. SilaneSeal WB 40 will also protect concrete (including GFRC) from the damaging effects of acid rain and freeze-thaw cycles. Additionally, SilaneSeal WB 40 will help to keep the concrete clean by reducing the amount of dirt and other pollutants that may absorb into the concrete, and will provide resistance against water, alkalis, acid rain, UV, and staining.

Advantages

SilaneSeal WB 40 is a silane in a proprietary emulsion system. Unlike many other silane or siloxane emulsion systems, SilaneSeal WB 40 is ready to use and is suitable for concrete, without the need to blend oils, silicones, stearates, or acrylates into the system. SilaneSeal WB 40 is designed to provide a high level of surface beading with penetration to protect against wind-

driven rain. The active components are unique because they chemically bond to the silica in the substrate and set up a hydrophobic layer of protection. Resists wheels & heavy loads. credits for both new and existing construction projects.

The main benefits of the product are:

- Non-flammable
- Excellent resistance to chloride ion ingress
- 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 40 is a silane emulsion in water.

Color	Milky White
Active Substance	Silane
Active Content	40%
Carrier	Water
VOC	<260 g/l

Test Data

90-Day Salt Ponding (AASHTO T-259)

(200 ft²/gal [4.9m²/l] coverage rate)

0.0-0.5" depth	92% reduction or 0.20lbs/yd ³ (criteria of 1.5)
0.5-1.0" depth	95% reduction or 0.00lbs/yd ³ (criteria of 0.75)
1.0-1.5" depth	85% reduction

NCHRP #244 (@ 200 ft²/gal or 4.9m²/l)

Series II 85% reduction in water absorption

Series II 87% reduction in chloride
absorption

Series IV 98% reduction in chloride absorption

Water Absorption of Concrete (ASTM C-642)

24 hours	0.25 %
48 hours	0.48 %
50 Days	1.2 %

Deicer Scaling (ASTM C-672)

100 Cycles 0 rating
(Non-air-entrained concrete)

Moisture Vapor Permeability of Organic Coatings (ASTM D-1653)

64 grams/ft²/24 hours 93% breathability

Skid Resistance (ASTM E-303)

Dry surface No change
Wet Surface No change

Packaging

5 gallon pails
55 gallon drums

Directions

Concrete must be allowed to cure for a minimum of 28 days. All patching must be completed and allowed to cure for at least 7 days. Concrete repair and replacement must be completed prior to application of SilaneSeal WB 40 Patching materials, caulking, sealing materials and traffic paint must be fully cured before applying SilaneSeal WB 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. Check with your Kaufman Products representative to verify that surface preparation is adequate.

SilaneSeal WB 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. Immediately prior to using, mix or stir the material using a powered drum mixer or recirculating pump. 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 40 using a flooding application, from the bottom up so the material runs down 4 to 6 inches below the spray pattern. For certain substrates, it may be necessary to apply a light fog coat to break the substrate's surface tension before the flood coat. Coverage rates on vertical concrete surfaces are between 175 and 250 ft²/gal. On horizontal surfaces, the liquid material should pond on the surface for at least 5 seconds before being absorbed.

For parking structures, consult the engineer's specification for the required application rate. Your Kaufman Products

representative can give an exact coverage rate for your particular project. Protect glass, metal, plastic, and other nonporous substrates from overspray. SilaneSeal WB 40 will not etch glass but will leave a residue on nonporous surfaces. SilaneSeal WB 40 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. Spray equipment and hoses can be cleaned with soap and water. Do not allow product to dry in spray equipment or hoses. Spray equipment and hoses should be clean and dry prior to application.

Limitations

Not intended for below-grade waterproofing. Will leave a residue on nonporous materials such as glass, metal, and painted surfaces. Shrubby 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 40 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.

For professional use only. Not for sale to or use by the general public.

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