

# K A U F M A N

PRODUCT  
INFORMATION

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## SilaneSeal 100

### Description

SilaneSeal 100 is a free-flowing, clear, frost-resistant, 100% solids, and solvent-free reactive silane sealer. SilaneSeal 100 will penetrate into the substrate and will chemically bond with the siliceous materials to form a permanent attachment of the water repellent molecule. This creates a deep hydrophobic layer that will prevent the ingress of water, deicing salts, and other contaminants that will cause premature deterioration of the substrate. SilaneSeal 100 will evenly penetrate into the substrate to provide a consistent level of protection, which will result in a longer treatment life on wearing surfaces.

SilaneSeal 100 is ideal for use when waterproofing mineral substrates, and especially on low-porosity substrates such as concrete (road bridges, port installations marine concrete structures, concrete facades, exposed aggregate concrete), clinker masonry and ceramic tiles as well as waterproofing under coating systems

### Uses

- For use on cast-in-place, precast, GFRC and high-strength concrete.
- For use on low-porosity surfaces such as those treated with our exposed aggregate retarder called Expose.
- Protects the reinforcing steel from corrosion due to the effects of water, deicing salts, and other waterborne contaminants.
- To alleviate the deterioration of concrete due to alkali-silica reactivity.
- Heavy-traffic wearing surfaces
- Areas that receive high salt concentrations (piers, coastal buildings), to provide a high-performance, long-lasting chloride screen.

### SilaneSeal 100 Advantages

- Excellent resistance to chloride ion ingress
- 100% moisture vapor transmission
- Mitigation of AAR & ASR deterioration
- Deep penetration into substrate
- No change in surface appearance
- No change in surface friction after application
- High resistance to alkali attack
- Long service life
- Excellent performance on wearing surfaces
- Rapid dry time of just 1 hour at 70°F
- Will not inhibit adhesion of paints and line striping

### SilaneSeal 100 PHYSICAL DATA

Color	Water White
Odor	Fruity
Active Substance	100%
	Isobutylalcoxy silane
Solvent	None
Flash Point	103°F
Density	7.8 lbs./gal.
VOC Content	340 g/l

### SilaneSeal 100 TEST DATA

#### NCHRP #244 Series II

Reduction in Water Absorption	
@ 150 ft <sup>2</sup> /gal	88%
Reduction in Chloride Ion Ingress	
@ 150 ft <sup>2</sup> /gal	88%

#### NCHRP #244 Series IV

Reduction in Chloride Ion	
@ 150 ft <sup>2</sup> /gal	99%

#### Water Absorption of Concrete (ASTM C-642)

24 hours	0.09%
48 Hours	0.11%
50 Days	0.34%

#### Deicer Scaling (ASTM C-672)

100 Cycles	0 Rating
(non-air-entrained concrete)	

#### 90 Day Salt Ponding (AASHTO T259)

Non Abraded Specimen	
1/2" to 1"0	94% reduction

#### Water Absorption of Concrete (ASTM D-6489)

48 hours	97% reduction
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#### Penetration, OHD L-40

Concrete 0.42 w/c ratio	3/8-1/2"
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### Packaging

5.00 gallon pail  
51.00 gallon drum  
255.00 gallon tote

## Application

Generally, concrete must be allowed to cure for a minimum of twenty-eight (28) days, however there are instances in which the cure time might be shortened. Please consult your local Kaufman Products sales representative for the criteria needed to apply sealer before the twenty-eight day cure time.

Concrete repair and replacement must be completed prior to application of SilaneSeal 100. Patching materials, caulking, sealing materials and traffic paint must be fully cured prior to application. 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, waterblasting and using specialty chemical cleaners.

SilaneSeal 100 should be applied using low-pressure (15 to 25 psi) pumping equipment with a wet fan type spray nozzle. Alternate methods include using a spray bar or apparatus equipped with multiple nozzle tips which will apply a uniform coat across the concrete surface. Power rollers with a 1" nap or brushes are permitted, however using these will result in additional labor and costs. Do not alter or dilute the material. Do not apply to a wet or damp substrate.

On vertical surfaces, apply SilaneSeal 100 in a flooding application from the bottom up, so the material runs down 6 to 8 inches below the spray pattern. Coverage rates on horizontal concrete surfaces are between 100 to 300 ft<sup>2</sup>/gal. Coverage rates on vertical surfaces depend on the type of substrate to be treated.

## Precautions

SilaneSeal 100 is not intended for below-grade waterproofing. SilaneSeal 100 should not be applied if the surface temperature is below 20°F (-7°C) or above 110°F (43°C), if rain is expected within four 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 twenty-four hours.

SilaneSeal 100 is a combustible liquid and should be kept away from heat, sparks, open flame, and other sources of ignition. SilaneSeal 100 containers should be kept closed when not in use, should be stored at temperatures between 0°F (-18°C) and 120°F (50°C), and kept away from rain and standing water. When working in an enclosed area, an air respirator should be used. Please refer to the complete Safety Data Sheet prior to use.

## Technical Information

The 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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