

## Product Data and Test Information

# PROTECTOSIL® 100

100% SILANE WATER REPELLENT

## PRODUCT DESCRIPTION

**Protectosil® 100** is a clear, penetrating, breathable, reactive penetrating sealer for use on concrete. It is a solvent-free, isobutylalkoxysilane. It allows for faster dry times and superior performance on high quality mix designs. It creates a hydrophobic layer that prevents water and waterborne contaminants from entering the substrate and causing premature deterioration.

## ADVANTAGES

- Excellent resistance to chloride ion ingress
- 100% Moisture vapor transmission
- Dry time 15-45 minutes between 50°F - 100°F (10°C - 38°C)
- Mitigation of AAR & ASR deterioration
- Deep penetration into substrate
- No change in surface appearance or surface friction after application
- High resistance to alkali attack
- Long service life, reapplication between 10-20 years.
- Excellent performance on wearing surfaces
- Will not inhibit adhesion of paints and line striping
- Can qualify for LEED Credits



**Protectosil® 100** shows excellent depth of penetration into concrete substrates, as well as preventing water and chloride ingress on treated surfaces.

## PRECAUTIONS

- Not intended for below grade waterproofing.
- Not to be applied if the surface temp is below 20°F (-7°C) or above 110°F (43°C)
- Not to be applied if there is rain expected within 4 hours after application.
- Must be applied with proper ventilation. In an enclosed area an air respirator must be used.
- Not to be applied near heat, sparks, open flame, or other ignition sources.
- Close containers when not in use.

## PREPARATION

Before application, concrete must be cured to a minimum of 80% compressive strength or to less than 8% moisture content. Concrete repair and any replacements must be completed prior to application of **Protectosil® 100**. Patching materials, caulking, sealing materials and traffic paint must be fully cured before application. All surfaces must be fully cleaned using power-washing, sandblasting, or chemical detergents of any surface contaminants (dirt, salt, laitance, paint etc.) and curing compounds.

Please confirm with your Protectosil® representative to verify the surface preparation is adequate. Always consult the full label and SDS for any precautionary safety measures before use and application. Use appropriate safety equipment and job site controls during application and handling.

## COVERAGE RATES

**Precast Concrete:** 175-250 sq.ft./gallon

**Cast-In-Place Concrete:** 150-200 sq.ft./gallon

\*Note: Coverage rates may vary by substrate porosity.

(continued)

## APPLICATION

Protectosil® 100 should be applied using low-pressure pumping equipment with a wet fan type spray nozzle. Do not alter or dilute the material. Do not apply to a wet or damp substrate. This product should not darken or discolor the substrate if used at the recommended coverage rates, but due to variations in surface porosity and environmental conditions, applying a test patch is advised to verify desired results.

A flood application of the material is required. On horizontal surfaces, the liquid material shall pond on the surface at least 5 seconds before being absorbed. Once applied, traffic must be kept off the treated surfaces until an hour after the treated surface has completely dried. On vertical surfaces, the liquid material should be applied bottom up, and shall run down 6-8 inches below the spray.

## TECHNICAL DATA

Color	clear
Active Ingredient	100% isobutylalkoxysilane
Solvent	none
Density	7.8 lb/gal
VOC	<350g/L

## TEST DATA

<b>ASTM C642 "Water Absorption of Concrete"</b>	
24 hours	0.49%
48 hours	0.50%
<b>ASTM C672 "Deicer Scaling"</b>	
100 Cycles (non-air-entrained concrete)	0 rating
<b>AASHTO T259 "90 Day Salt Ponding"</b>	
Non Abraded specimen ½" to 1"	94% reduction
<b>ASTM D6489 "Water Absorption of Concrete"</b>	
48 hours	97% reduction
<b>Penetration, OHD L-40</b>	
Concrete 0.42 w/c ratio	¾ to ½ in

## TEST DATA

NCHRP #244 Series II - Reduction in water absorption	88%
NCHRP #244 Series II - Reduction in chloride ion ingress	88%
NCHRP #244 Series IV - Reduction in chloride ion	99%

## TECHNICAL SERVICE

Technical service engineers and scientists are available to answer questions. You can speak to one of our scientists directly by calling **732-289-1239**.

## MANUFACTURER

### Evonik Corporation

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**PROTECTOSIL® PRODUCTS ARE MANUFACTURED AT THE EVONIK CORPORATION THEODORE, ALABAMA, PLANT UNDER A QUALITY SYSTEM CERTIFIED TO ISO-9001, ISO-14001, AND ISO-50001 REQUIREMENTS.**

**For more information, SDS and the most updated product information, and to find your local representative, go to [evonik.click/protectosil](http://evonik.click/protectosil)**

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