

**Product Data and Test Information**

# PROTECTOSIL® WS CIT 200

## PRODUCT DESCRIPTION

The next generation silane corrosion inhibitor. A clear, penetrating, breathable VOC-compliant organofunctional silane reactive penetrating corrosion inhibitor surface treatment for use on concrete. The organofunctional silane allows for superior performance on high quality mix designs typical of new bridge decks and can also be used on existing structures with active corrosion. Creates a deep hydrophobic layer that prevents water and waterborne contaminants from entering the substrate and causing premature deterioration. **Protectosil® WS CIT 200** is able to move through the moisture boundary layer that lines the pore structure of the substrate. This permits the development of uniform gradient permeation — a consistent level of protection throughout the entire depth of penetration — allowing for longer treatment life, especially on wearing surfaces. This also allows the **Protectosil® WS CIT 200** to reach the steel and form a protective layer to reduce

## APPROPRIATE APPLICATIONS

For use on cast-in-place, pre-cast, and high-strength concrete, to protect the reinforcing steel from corrosion due to the effects of water, deicing salts and carbonation. Alleviates deterioration of concrete due to alkali-silica reactivity. For protecting concrete structures such as parking and bridge decks, columns and beams, piers, sea walls, sidewalks, balconies, driveways, roads and other steel reinforced concrete structures. The organofunctional silane corrosion inhibitor reduces active corrosion of steel reinforced concrete. For treating heavy traffic wear locations or areas which receive high salt concentrations to provide a high performance, long lasting chloride screen.

## ADVANTAGES

**Protectosil® WS CIT 200** is an water-based organofunctional silane corrosion inhibitor. **Protectosil® WS CIT 200** penetrates deeper than traditional silane and siloxane solvent- or water-carried systems. This deeper penetration gives a long-lasting, resistance against water and chloride intrusion. **Protectosil® WS CIT 200**'s breathable system greatly reduces the amount of water that enters a substrate, thus promoting a "drying out" of the substrate. Reduces the deteriorating effects of water, such as alkali silica reactivity. By incorporating **Protectosil® WS CIT 200** into your integrated design, you can earn vital Leadership in Energy &

Environmental Design (LEED) credits for both new and existing construction projects.

The main benefits of the product are:

- 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
- Dry time 4 hours at 70°F (21°C)
- Will not inhibit adhesion of paints and line striping

## TECHNICAL DATA

**PROTECTOSIL® WS CIT 200** is a liquid organofunctional silane.

Color	milk white
Active Content	50%
Solvent	Water
Flash point	> 205°F
Density	8.3 lb/gal
VOC	170 g/l

## TEST DATA

<b>M-82 Corrosion Protocol</b>	
Reduction in average integrated current	84%
Reduction lineal crack formation	80%
<b>ASTM C6489 "Water Absorption of Concrete"</b>	
24 hours	0.25%
<b>ASTM C672 "Deicer Scaling"</b>	
100 cycles	0 rating

## INSTALLATION

Generally, concrete must be allowed to cure for a minimum of 28 days, however there are instances which the cure time can be shortened. Please consult your local Protectosil rep for the criteria needed to apply sealer before the 28 day cure time. Concrete repair and replacement must be completed prior to application of **Protectosil® WS CIT 200**. Patching materials, caulking, sealing materials and traffic paint must be fully cured before applying **Protectosil® WS CIT 200**. 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, aterblasting and using chemical cleaners. Check with your Protectosil representative to verify that surface preparation is adequate. **Protectosil® WS CIT 200** should be applied using low-pressure (15 to 2 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. A test patch should be applied to the substrate by a Protectosil representative to verify coverage rate and application conditions. On vertical surfaces, apply the **Protectosil® WS CIT 200** in a flooding application from the bottom up, so the material runs down to inches below the spray pattern. Coverage rates on horizontal concrete surfaces are between 150 and 225 ft<sup>2</sup>/gal. Coverage rates on vertical surfaces depend on the type of substrate to be treated. Your Protectosil representative can give exact coverage rates for your particular project.

**Precautions:** **Protectosil® WS CIT 200** containers should be kept closed when not in use and should be stored at temperatures between 35°F (2°C) and 110°F (43°C), away from rain and standing water. Protect the product from freezing. Keep off asphalt and bituminous materials. Please refer to the safety data sheet for more detailed information.

## PRICING, AVAILABILITY & TECHNICAL SERVICE

**PROTECTOSIL® WS CIT 200** is available in 5-gallon pails, 55-gallon drums or 245 gallon totes. Shipped F.O.B. throughout the United States and Canada. Contact your local Protectosil representative or your regional manager for specific cost information. You can obtain their contact information on our website, [www.protectosil.com](http://www.protectosil.com), or by calling us at 1 (800) 828-0919.

Technical service engineers and scientists are available to answer questions about product performance, application methods and compatibility with other building materials. You can speak to one of our engineers or scientists directly by calling our toll-free number.

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

Protectosil® = registered trademarks of Evonik Industries  
This information and all technical and other advice are based on Evonik Corp's ("Evonik") present knowledge and experience. However, Evonik assumes no liability for such information or advice, including the extent to which such information or advice may relate to third party intellectual property rights. Evonik reserves the right to make any changes to information or advice at any time, without prior or subsequent notice. EVONIK DISCLAIMS ALL REPRESENTATIONS AND WARRANTIES, WHETHER EXPRESSOR IMPLIED, AND SHALL HAVE NO LIABILITY FOR MERCHANTABILITY OF THE PRODUCT OR ITS FITNESS FOR A PARTICULAR PURPOSE (EVEN IF EVONIK IS AWARE OF SUCH PURPOSE), OR OTHERWISE. EVONIK SHALL NOT BE RESPONSIBLE FOR CONSEQUENTIAL, INDIRECT OR INCIDENTAL DAMAGES (INCLUDING LOSS OF PROFITS) OF ANY KIND. It is the customer's sole responsibility and obligation to arrange for inspection and testing of all products by qualified experts. Reference to trade names used by other companies is neither a recommendation nor an endorsement of the corresponding product, and does not imply that similar products could not be used.

**EVONIK CORPORATION**  
299 Jefferson Road  
Parsippany, NJ 07054-0677  
Phone +1 800 828-0919  
[info.protectosil@evonik.com](mailto:info.protectosil@evonik.com)  
[www.protectosil.com](http://www.protectosil.com)