PRODUCT DESCRIPTION
Protectosil® AQUA-TRETE® EM is a penetrating, waterborne, vapor-permeable water repellent for use on concrete, brick, concrete masonry units and some natural stones. As a ready-to-use, low-VOC, silane/siloxane emulsion, this product reduces the ingress of water and waterborne contaminants by chemically bonding with siliceous materials within a substrate to form a permanent attachment to the water repellent molecule. This can prevent premature deterioration among other things.

By reducing the ingress of water and waterborne contaminants into the substrate, Protectosil® AQUA-TRETE® EM reduces such problems as efflorescence, leaching, acid rain deterioration, scaling, dirt buildup, staining, 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 masonry.

Protectosil® AQUA-TRETE® EM water repellent is especially suited for applications where solvent-borne products are not acceptable, such as states that have VOC regulations for AIM coatings. Protectosil® AQUA-TRETE® EM is VOC compliant in all 50 states, including California’s SCAQMD.

APPROPRIATE APPLICATIONS
Protects concrete from the effects of water, deicing salts and other waterborne chemicals. Keeps concrete and other substrates, including stucco, sandstone, terra-cotta, hand molded bricks and some natural stones, clean by reducing the amount of dirt and other pollutants that may be absorbed. Prevents moisture absorption in brick masonry, especially single wythe wall construction. Protects concrete masonry units (medium- to normal-weight split-face, fluted or ground faced blocks) from the ingress of wind-driven rain.

ADVANTAGES
Protectosil® AQUA-TRETE® EM is a silane/siloxane mixture in a proprietary emulsion system. Unlike some other silane or siloxane emulsion systems, Protectosil® AQUA-TRETE® EM is ready to use and is suitable for brick and concrete, without the need to blend oils, silicones, stearates or acrylates into the system. Protectosil® AQUA-TRETE® EM 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. Because of this unique chemistry, Protectosil® AQUA-TRETE® EM has a long service life. By incorporating Protectosil® AQUA-TRETE® EM 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:
- Non flammable
- High resistance to wind-driven rain
- Reduced efflorescence
- Breathable system
- Good penetration into substrate
- High resistance to alkali attack
- Keeps substrates cleaner

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 temperature is below 40°F (5°C) or above 100°F (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.

TECHNICAL DATA
Protectosil® AQUA-TRETE® EM is composed of a silane/siloxane emulsion in water.

<table>
<thead>
<tr>
<th>Color</th>
<th>milky white</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Substance</td>
<td>silane/siloxane</td>
</tr>
<tr>
<td>Active Content</td>
<td>10%</td>
</tr>
<tr>
<td>Solvent</td>
<td>water</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt;200°F</td>
</tr>
<tr>
<td>Density</td>
<td>8.34 lb/gal</td>
</tr>
<tr>
<td>VOC</td>
<td>90 g/l max</td>
</tr>
</tbody>
</table>

(continued)
TEST DATA

<table>
<thead>
<tr>
<th>Test Standard</th>
<th>Description</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTM C140</td>
<td>Water Absorption Concrete Masonry Units</td>
<td>24 hr submersion test: 97.3% effective in reducing water intrusion</td>
</tr>
<tr>
<td>ASTM C672</td>
<td>Deicer Scaling</td>
<td>60 cycles</td>
</tr>
<tr>
<td>TT-C-555B</td>
<td>2500 hours of Accelerated Weathering</td>
<td>No Change</td>
</tr>
<tr>
<td>ASTM D 1653</td>
<td>Moisture Vapor Permeability of Organic Coatings</td>
<td>64 g/ft²/24 hours: 92% water vapor transmission</td>
</tr>
<tr>
<td>ASTM E514</td>
<td>Water permeance of Masonry</td>
<td>Untreated leakage: 5.50 l/hr, Treated leakage: 0.01 l/hr, Reduction in leakage: 100%</td>
</tr>
</tbody>
</table>

INSTALLATION

Concrete must be allowed to cure for a minimum of 28 days. All repointing must be completed and allowed to cure for at least 3 days. Concrete repair and replacement must be completed prior to application of Protectosil® AQUA-TRETE® EM. Patching materials, caulking, sealing materials and traffic paint must be fully cured before applying Protectosil® AQUA-TRETE® EM.

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 chemical cleaners. Check with your Protectosil representative to verify that surface preparation is adequate.

Protectosil® AQUA-TRETE® EM should be applied using low-pressure (15 to 25 psi) pumping equipment with a wet fan type spray nozzle. Alternate methods include using 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, desired results and application conditions.

Substrate, air and product temperatures should be between 40°F and 100°F (5°C and 40°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 the Protectosil® AQUA-TRETE® EM using a flooding application from the bottom up, so the material runs down 6 to 8 inches below the spray pattern. On horizontal surfaces, the liquid material should pond on the surface for at least 5 seconds before being absorbed. Coverage rates on masonry surfaces depend on the type of material to be treated. Your Protectosil® representative can give an exact coverage rate for your particular project.

Protect glass, metal, plastic and other nonporous substrates from overspray. Protectosil® AQUA-TRETE® EM will not etch glass but will leave a residue on nonporous surfaces. Protectosil® AQUA-TRETE® EM 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.

Precautions: Protectosil® AQUA-TRETE® EM product containers should be kept closed when not in use and should be stored at temperatures between 40°F and 110°F (5°C and 45°C), away from rain and standing water. Please read the material safety data sheet for more detailed information.

AVAILABILITY

Protectosil® AQUA-TRETE® EM is available in 5-gallon pails and 55-gallon drums. 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, or by calling us at 1 (800) 828-0919.

TECHNICAL SERVICE

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, 1 (800) 828-0919, and selecting option 1.

(continued)
For more information, SDS and the most updated product information, and to find your local representative, go to www.protectosil.com

Protectosil® = registered trademarks of Evonik Industries

This information and all technical and other advice are based on Evonik Corporation (“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 EXPRESSED OR 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.