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Water Repellents

# SILOXA-TEK® 8500

HIGH PERFORMANCE, CLEAR, BREATHABLE, WATER AND SALT REPELLENT SEALER THAT ACHIEVES HIGHEST DEPTH OF PENETRATION.

## Description

A new high performance nanotechnology driven clear breathable, deep penetrating water-based water and chloride repellent that provides exceptional penetrating power and water repellency.

Siloxa-Tek® 8500 is a deep penetrating water repellent that protects against water-soluble deleterious materials, and freeze/thaw cycles. With its long established hydrophobic agents, and through the latest advances in nanotechnology, its intelligent nano particles provide even deeper penetration adding an extra layer of protection.

Once applied the change of the surface tension creates a surface

environment that is hydrophobic forming an effective shield that aides in a dramatic reduction of chloride and water absorption.

The proprietary nanotechnology offers deeper penetration when compared to traditional silane isomers resulting in an even longer service life that protects the concrete, forming an invisible barrier that leaves the concretes appearance completely natural.

### Actives

Derived from 40% actives

### Appearance/color

Milky white liquid (dries clear)

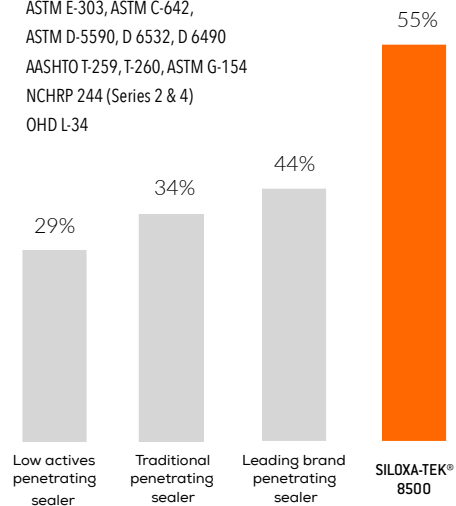
### Coverage

150-400 ft<sup>2</sup>/gallon

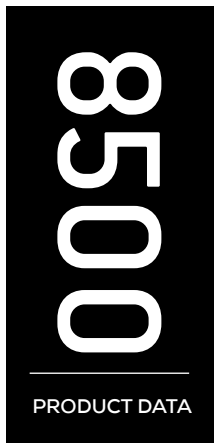
DEPTH OF PENETRATION  
WATER REPELLENCY AND WEATHERING

Meets the requirements of:

- ASTM E-514, ASTM E-96, ASTM C-672,
- ASTM E-303, ASTM C-642,
- ASTM D-5590, D 6532, D 6490
- AASHTO T-259, T-260, ASTM G-154
- NCHRP 244 (Series 2 & 4)
- OHD L-34



Percentage Improvement vs. Control



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## TECHNOLOGY // ADVANTAGES

- **Composition** - Nanotechnology driven high-performance isooctyltriethoxysilane. Its smaller molecular structure allows for deeper penetration increasing performance
- **Excellent waterproofing** - Penetrates deep within the concrete chemically reacting within the pores and capillaries creating a long-lasting hydrophobic surface that beads water
- **100% breathable** - Non-film forming. Allows moisture within the concrete to escape without adverse effects to the sealer. Does not trap moisture
- **Protects against chloride ion penetration** - Forms an effective chloride screen dramatically reducing chloride ion ingress preventing deicing salt / chloride damage
- **Resists moisture intrusion** - Resists wind-driven rain, spalling, pitting and cracking.
- **Resists organic growth** - Mold, mildew, lichen, and efflorescence
- **Department of Transportation approved** - Meets or exceeds DOT specifications
- **Improves durability** - Prevents capillary uptake of water and the aggressive substances dissolved in it
- **Protects reinforced concrete** - By limiting surface water content, chlorides and aggressive salts
- **Available ready to use or ultra concentrated** - For 80% less transportation costs and less container waste

- **Resists freeze thaw & thermal cycling damage** - and resists ASR/alkali attacks by preventing the ingress of water
- **Natural flat finish** - Does not change surface appearance, UV stable will not breakdown with light exposure
- **Can be applied to cured, honed and polished concrete** - Ideal for horizontal surfaces exposed to pedestrian and vehicle traffic, compatible with silicate densifiers
- **Water based** - Low VOC's, environmentally friendly
- **Unrivaled industry leading 100 year warranty** - Penetrates never delaminates, never diffuses, peel or flakes will not discolor yellow or degrade from UV light exposure.

## TYPICAL PROPERTIES

**Appearance** - Milky white liquid (dries clear)

**Packaging** - 1 gallon (3.78 L), 5 gallon (18.9 L) pails and 55 gallon (208 L) drums

**VOC'S** - 90g/L maximum

**Flash Point** - 199° F (93° C boiling)

**Specific gravity** - 0.97 **Density** - 8 lb/gal



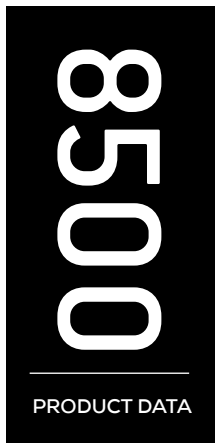
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TESTING DATA

TEST METHOD	TYPE	RESULTS
<p><b>ASTM E 303</b> Standard test method for measuring surface friction (BPT).</p>	<p><b>Skid Resistance</b> Troweled Concrete Untreated Treated</p>	<p>90 90</p>
<p><b>ASTM D 6532</b> Standard test method for evaluation of clear water repellents on water absorption in concrete.</p>	<p><b>Water Absorption, %</b> Concrete Brick</p>	<p>0.96 0.05</p>
<p><b>ASTM D 6490</b> Standard test method for water vapor transmission or non film forming agents</p>	<p><b>Water Vapor Transmission</b> WVT (grains/h/ft²) Permeance (perms)</p>	<p>2.0 4.8</p>
<p><b>ASTM E 514</b> Standard test method for water penetration and leakage through masonry</p>	<p><b>Water Penetration of Masonry, % Reduction</b> Dampness Leakage</p>	<p>100 100</p>
<p><b>ASTM D 6532</b> Standard test method for evaluation of clear water repellents on water absorption in concrete</p>	<p><b>Water Exclusion, %</b> Concrete Brick</p>	<p>90 99</p>
<p><b>ASTM C642</b> Standard test method for density, absorption and voids in hardened concrete</p>	<p><b>Water Absorption, %</b> 48 hours 50 days</p>	<p>0.39 .80</p>
<p><b>ASTM C672</b> Standard test method for scaling resistance of concrete surfaces exposed to deicing chemicals</p>	<p><b>Scaling resistance rating, Non-air-entrained concrete</b> 100 cycles</p>	<p>0-No scaling</p>
<p><b>NCHRP</b> Series II-Cube Test</p>	<p><b>Water Weight Gain, % Reduction</b> 250 ft³/gal 400 ft³/gal</p>	<p>90 85</p>
<p><b>NCHRP</b> Series II-Cube Test</p>	<p><b>Absorbed Chloride, % Reduction</b> 250 ft³/gal 400 ft³/gal</p>	<p>96 87</p>
<p><b>NCHRP</b> Series IV - Southern Climate</p>	<p><b>Absorbed Chloride, % Reduction</b></p>	<p>98 (exceeds criteria)</p>
<p><b>Alberta DOT, Type 1B Compliant</b></p>		

Test results are averages obtained in a controlled environment, material and curing conditions of 75°F and 50% relative humidity. Reasonable variations should be expected .



## Technical Data Sheet

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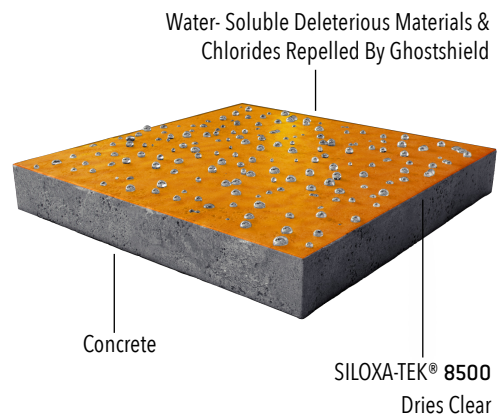
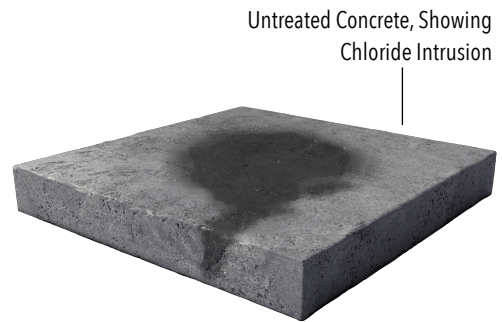
### APPLICATIONS // SUBSTRATES

#### Applications

- Interior // exterior concrete
- Horizontal // vertical substrates
- Reinforced concrete structures
- Traffic-bearing concrete substrates
- Bridge decks and substructures
- Concrete ramps and barriers
- Parking garages
- Stadiums and buildings
- Concrete driveways, loading docks, public sidewalks, garages and roof tiles.
- Plazas

#### Substrates

- Concrete
- Brick and Masonry
- Stucco
- CMU
- Exposed aggregate
- Pavers





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## Technical Data Sheet

### APPLICATION

#### Surface Prep

1. New "green" concrete must be properly cured. Concrete should obtain 80% of design strength, typically achieved within 14-28 days.
2. The concrete substrate must be structurally sound and clean of oil, grease, dirt, wax, curing compounds, efflorescence, paints, previous sealers, adhesives and other contaminants that might interfere with the penetration of the sealer. Power wash, acid etch or mechanically scarify as necessary to achieve the desired surface condition. Allow for proper dry time before application. May be applied to slightly damp surfaces, although maximum penetration is achieved on dry substrates. Do not apply if standing water is visible.
3. Surface and air temperatures must be at least 40°F during application. Surface and air temperatures should not exceed 95°F. Do not apply when temperatures are expected to fall below 32°F within 8 hours or when rain is expected within 12 hours following application. Keep material from freezing. If freezing conditions exist before application, let the substrate thaw before application. Do not apply during inclement weather or when inclement weather is expected within 12 hours.
4. Crack, patching and expansion joint sealants can be applied before or after application; always test for compatibility and adhesion.
5. Protect people, property, vehicles, window glass, roofing materials, plastic products, shrubbery, landscaping and all surfaces not set for treatment from overspray.

#### Application - Ready to Use

1. Always test a small area before application to ensure desired performance, aesthetics, coverage rates and to verify application technique. Let test area dry thoroughly, 5-7 days, before inspection.
2. Stir material thoroughly before and during application. Do not dilute or alter material for purposes other than specified.

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#### Application - Ready to Use (Continued)

3. Two wet-on-wet coats are needed to ensure complete coverage. Apply with a roller, brush or low-pressure non-atomizing sprayer. Apply to saturation and let the first coat penetrate for 5-10 minutes then reapply a second coat in the same saturating manner. Less material will be needed for the second coat. Roll or broom out any puddles until the sealer penetrates the substrate. If it starts to rain, stop treatment and cover the impregnated areas.

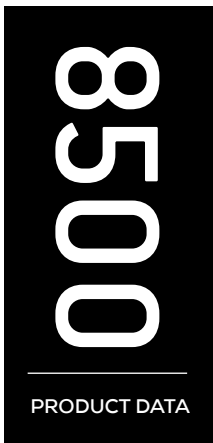
#### Application - Ultra Concentrate

1. Always test a small area before application to ensure desired performance, aesthetics, coverage rates and to verify application technique. Let test area dry thoroughly, 5-7 days, before inspection.
2. Always mix the concentrate with 4 parts water prior to application. Distilled water is recommended for maximum performance. Stir material thoroughly before and during application.
3. Two wet-on-wet coats are needed to ensure complete coverage. Apply with a roller, brush or low-pressure non-atomizing sprayer. Apply to saturation and let the first coat penetrate for 5-10 minutes then reapply a second coat in the same saturating manner. Less material will be needed for the second coat. Roll or broom out any puddles until the sealer penetrates the substrate. If it starts to rain, stop treatment and cover the impregnated areas.

#### Dry Time

Typical drying time is 4-6 hours at 70°F and 50% relative humidity. Cooler temperatures or higher relative humidity can extend the drying time. Treated surfaces will be ready for pedestrian and vehicle traffic within 24 hours. Water repellency will continue to develop within 7 days of application.

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## APPLICATION

**Clean Up** - Clean equipment, tools and surfaces with hot soapy water. Unused or old material may be disposed of in a waste disposal site in accordance with local, state and federal laws.

**Precautions/Safety** - Avoid contact with skin, eyes and clothing, do not take internally. Use appropriate safety equipment during application and handling. Please refer to the safety data sheet (SDS) for additional precautionary instructions before use.

### Best Performance

- Proper application is the responsibility of the user.
- Will not inhibit water penetration through unsound or cracked surfaces with defective flashing, caulking or structural waterproofing.
- Spills should not be allowed to sit for extended periods of time, clean all spills in a timely manner.
- Make sure the most current versions of technical data sheets and safety data sheets are being used.

### Coverage

1 coat: 150 - 400 square feet per gallon. 2 coats: 75 - 200 square feet per gallon. Variations in texture and porosity of substrate will affect the coverage and performance of the product.

### KreteTek Industries Inc.

1000 N West Street  
Wilmington, DE 19801

[www.Ghostshield.com](http://www.Ghostshield.com)

### Customer Service and Technical Support

1-855-KreteTek (1-855-573-8383)

## Warranty

KreteTek Industries Inc. warrants this product to be free from manufacturing defects and to meet the technical properties on the current Technical Data Sheet if used as directed within shelf life. Satisfactory results depend not only on quality products but also upon many factors beyond our control. KreteTek Industries Inc. makes no other warranty or guarantee, express or implied, including warranties of merchantability or fitness for a particular purpose with respect to its products. The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is the replacement of product or refund of the purchase price at the sole option of KreteTek Industries Inc. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by Purchaser. KreteTek Industries Inc. will not be responsible for any special, incidental, consequential (including lost profits) or punitive damages of any kind.

Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on KreteTek Industries Inc. present knowledge and experience. However, KreteTek Industries Inc. assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. KreteTek Industries Inc. reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.

### For professional use only.

Last revised 2/18