



Sections

07 07 19 16
Water Repellents



Technical Data Sheet

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 concrete's appearance completely natural.

Appearance/color

Milky white liquid (dries clear)

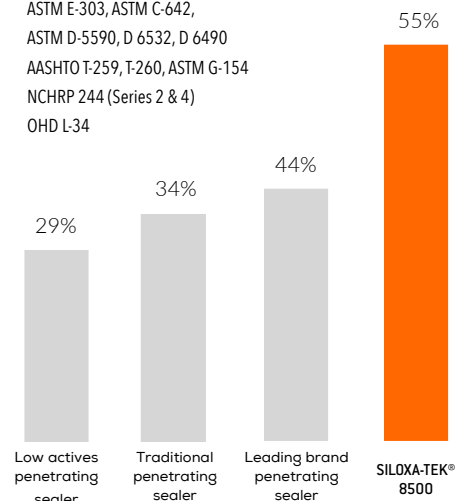
Coverage

150-400 ft²/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
- **Provides ease of maintenance**, resists ASR / Alkali attack
- **Protects against chloride ion penetration** - Forms an effective chloride screen dramatically reducing chloride ion ingress preventing deicing salt / chloride damage
- **Stops moisture intrusion** - Resists wind-driven rain, prevents freeze-thaw damage, spalling, pitting and cracking.
- **Formulated with an advanced proprietary antimicrobial / biocide**
- **Resist organic growth** - Resists mold, mildew, lichen, moss and microorganism growth
- **Department of Transportation approved** - Meets or exceeds DOT specifications
- **Improves durability** - Prevents capillary uptake of water and the aggressive substances dissolved in it
- **Resist Efflorescence**

- **Resists freeze thaw and thermal cycling damage**
- **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
- **Unrivalled 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

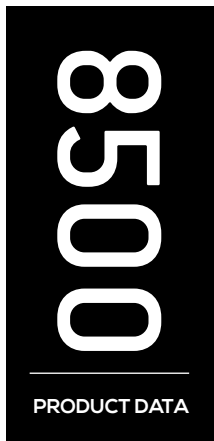
Appearance - Milky white liquid (dries clear)

Packaging - 1 gallon (3.78 L), 1 gallon ultra concentrate (3.78 L) and 55 gallon (208 L) drums

VOC'S - 50g/L maximum

Flash Point - 212° F (100° C boiling)

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



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TESTING DATA

TEST METHOD

ASTM E 303

Standard test method for measuring surface friction (BPT).

ASTM D 6532

Standard test method for evaluation of clear water repellents on water absorption in concrete.

ASTM D 6490

Standard test method for water vapor transmission or non film forming agents

ASTM E 514

Standard test method for water penetration and leakage through masonry

ASTM D 6532

Standard test method for evaluation of clear water repellents on water absorption in concrete

ASTM C642

Standard test method for density, absorption and voids in hardened concrete

ASTM C672

Standard test method for scaling resistance of concrete surfaces exposed to deicing chemicals

NCHRP

Series II-Cube Test

NCHRP

Series II-Cube Test

NCHRP

Series IV - Southern Climate

Alberta DOT, Type 1B Compliant

TYPE

RESULTS

Skid Resistance Troweled Concrete

Untreated	90
Treated	90

Water Absorption, %

Concrete	0.96
Brick	0.05

Water Vapor Transmission

WVT (grains/h/ft²)	2.0
Permeance (perms)	4.8

Water Penetration of Masonry, % Reduction

Dampness	100
Leakage	100

Water Exclusion, %

Concrete	90
Brick	99

Water Absorption, %

48 hours	0.39
50 days	.80

Scaling resistance rating, Non-air-entrained concrete

100 cycles	0-No scaling
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Water Weight Gain, % Reduction

250 ft²/gal	90
400 ft²/gal	85

Absorbed Chloride, % Reduction

250 ft²/gal	96
400 ft²/gal	87

Absorbed Chloride, % Reduction

98 (exceeds criteria)

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 .



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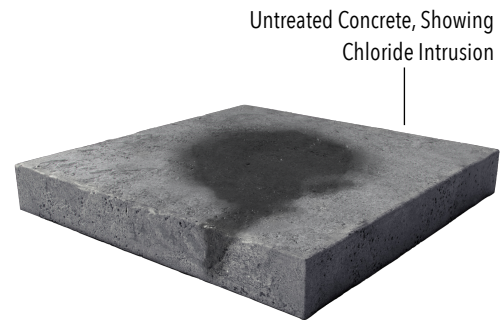
APPLICATIONS // SUBSTRATES

Applications

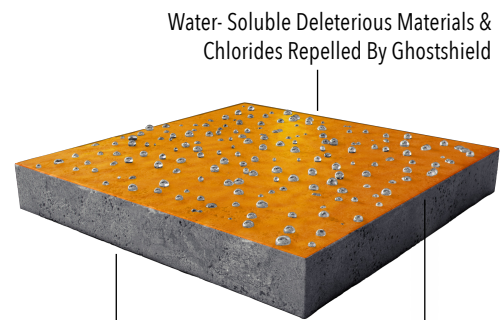
- Interior // exterior concrete
- Horizontal // vertical substrates
- Reinforced concrete structures
- Traffic-bearing concrete substrates
- Bridge decks and substructures
- Concrete ramps and barriers
- Parking garages
- Stadiums and buildings
- Concrete driveways, loading docks, public sidewalks, garages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

Substrates

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



Untreated Concrete, Showing
Chloride Intrusion



Water-Soluble Deleterious Materials &
Chlorides Repelled By Ghostshield

Concrete

SILOXA-TEK® 8500
Dries Clear



Ghostshield Dries Completely Clear Protecting
the Concrete From Surface Damage



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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. The surface-zone moisture content of the concrete should not exceed 4% wt. 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 90°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.

Application - Ready to Use (Continued)

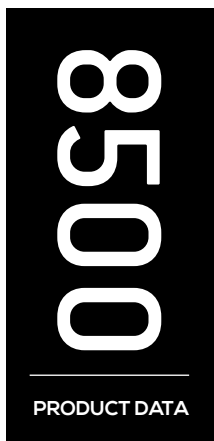
3. Two wet-on-wet coats are needed to ensure complete coverage. Apply with a roller, brush or low-pressure non-atomizing sprayer. Apply to saturation and let the first coat penetrate for 5-10 minutes then reapply a second coat in the same saturating manner. Less material will be needed for the second 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 product 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.

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Hudson, NH 03051

www.Ghostshield.com

Customer Service and Technical Support

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

Warranty

KreteTek Industries Inc. warrants our products are manufactured to strict quality assurance specifications and that the information supplied by us is accurate to the best of our knowledge. Such information supplied about our products is not a representation or a warranty. It is supplied on the condition that you shall make your own tests to determine the suitability of our product for your particular purpose. Any use or application other than recommended herein is the sole responsibility of the user. Listed physical properties are typical and should not be construed as specifications. No warranty is made, expressed or implied, regarding such other information, the data on which it is based or the results you will obtain from its use. We shall have no liability for incidental or consequential damages, direct or indirect. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sale of our products.

Acceptance of delivery of our product means that you have accepted the terms of this warranty whether or not purchase orders or other documents state terms that vary from this warranty. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sales of our products. Our products contain chemicals that may cause serious physical injury. Before using, read the Safety Data Sheet and follow the precautions to prevent bodily harm.

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 10/23