

Sections

07 07 19 16
Water Repellents

ISO-TEK® 8511 CORROSION INHIBITOR

SUPERCHARGED, AMINO INFUSED CORROSION INHIBITOR TREATMENT FOR STRUCTURAL AND STEEL REINFORCED CONCRETE

Description

A new, supercharged, dual-action, penetrating, clear, surface applied blend of organofunctional corrosion inhibitors based upon amino alcohol technology that inhibits the electrochemical corrosion process between the steel (rebar), chloride ions, oxygen and moisture within concrete.

Iso-Tek® 8511 impregnates the concrete forming a protective barrier on the surface of the steel reinforcement reducing the rate of corrosion in carbonated and chloride contaminated concrete inhibiting rust and carbonization, while simultaneously protecting against water-soluble deleterious materials.

With its long established hydrophobic agents, amino-alcohol technology and through the latest advances in nanotechnology, its corrosion inhibiting technology provides an extra layer of protection for structurally reinforced concrete

Actives

100%

Appearance/color

Clear, Colorless

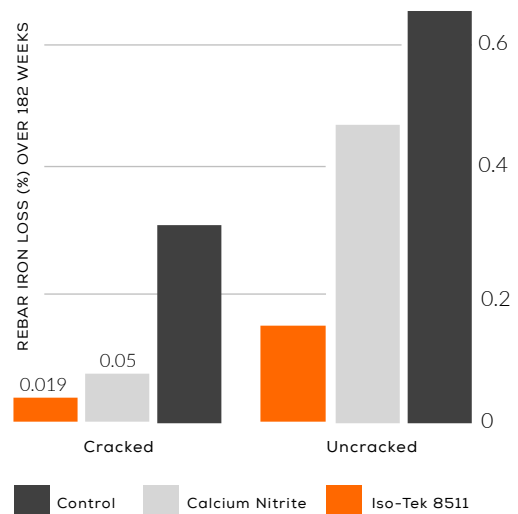
Coverage

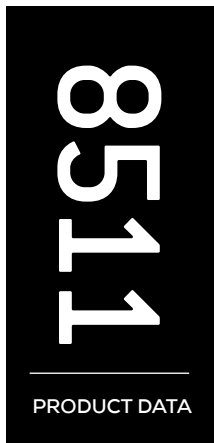
150-250 ft²/gallon

CORROSION PERFORMANCE

Meets the requirements of:

ASTM G 109 Standard Test Method for Determining Effects of Chemical Admixtures on Corrosion of Embedded Steel Reinforcement in Concrete Exposed to Chloride Environments.
ASTM C1585 Standard Test Method for Measurement of Rate of Absorption of Water by Hydraulic-Cement Concretes





Technical Data Sheet

Sections

07 07 19 16
Water Repellents

TECHNOLOGY // ADVANTAGES

- **Composition** - Dual-action penetrating organofunctional corrosion inhibitor and water repellent treatment based upon amino alcohol technology for structurally reinforced concrete that inhibits the electrochemical corrosion process of the steel within the concrete
- **Reduces high and low corrosion rates** by anodic, cathodic control and concrete resistivity principles
- **Dramatic reduction in the chloride-ion-induced corrosion** rate of concrete steel reinforcement
- **Improves durability** - Prevents capillary uptake of water and the aggressive corrosive substances dissolved in it
- **Forms a protective passivating coating** that chemically bonds with steel reinforcement
- **Significantly inhibits the onset and rate of corrosion** of carbon and galvanized steel rebar
- **Resists freeze thaw** and thermal cycling damage
- **Mitigates the corrosion of rebar** in structures exposed in high humidity environments
- **Excellent penetration depth** into structurally reinforced concrete.
- **Natural flat finish** - does not change surface appearance, UV stable will not breakdown with light exposure
- **Odorless** excellent for cold weather applications

- **Natural flat finish** - Does not change surface appearance, UV stable will not breakdown with light exposure
- **Reduces the rate of corrosion** in carbonated and chloride contaminated concrete
- **Unrivaled industry leading 100 year warranty** - Penetrates never delaminates, never diffuses, peel or flakes will not discolor yellow or degrade from UV light exposure.
- **100% breathable** - Non-film forming. Allows moisture within the concrete to escape without adverse effects to the sealer.

TYPICAL PROPERTIES

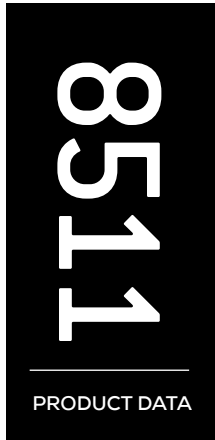
Appearance - Clear, Colorless

Packaging - 5 gallon (18.9 L) pails and 55 gallon (208 L) drums

VOC'S - 350g/L maximum

Flash Point - 108° F (42° C)

Specific gravity - 0.82 **Density** - 8.8 lb/gal



Technical Data Sheet

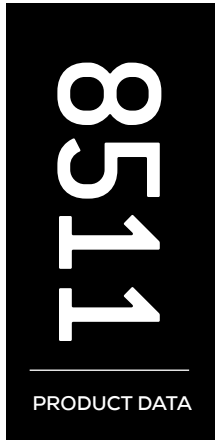
Sections

07 07 19 16
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TESTING DATA

TEST METHOD	TYPE	RESULTS
<p>ASTM G109 Standard test method for determining effects of chemical admixtures on corrosion of embedded steel reinforcement in concrete exposed to chloride environments</p>	Rebar iron loss (%) over 182 weeks	0.019
<p>ASTM E 303 Standard test method for measuring surface friction (BPT).</p>	<p>Skid Resistance Troweled Concrete</p> Untreated Treated	90 90
<p>ASTM D 6532 Standard test method for evaluation of clear water repellents on water absorption in concrete.</p>	<p>Water Absorption, %</p> Concrete Brick	0.96 0.05
<p>ASTM D 6490 Standard test method for water vapor transmission or non film forming agents</p>	<p>Water Vapor Transmission</p> WVT (grains/h/ft²) Permeance (perms)	2.0 4.8
<p>ASTM D 6532 Standard test method for evaluation of clear water repellents on water absorption in concrete</p>	<p>Water Exclusion, %</p> Concrete Brick	92 99
<p>ASTM C672 Standard test method for scaling resistance of concrete surfaces exposed to deicing chemicals</p>	<p>Scaling resistance rating, non-air-entrained concrete 100 cycles</p>	0-No scaling

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

Sections

07 07 19 16
Water Repellents

APPLICATIONS // SUBSTRATES

Applications

- Bridges and highway infrastructure
- Rail and metro systems
- Concrete Balconies
- Reinforced concrete structures
- Marine and high humidity environments
- Traffic-bearing concrete substrates
- Concrete ramps and barriers
- Parking structures
- Structurally reinforced stadiums and buildings

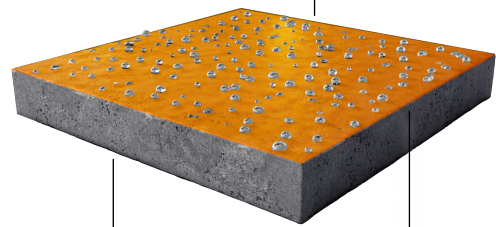
Substrates

- Architecturally reinforced concrete
- Precast
- Post tension
- Steel-reinforced cast-in-place concrete

Untreated Concrete, Showing Chloride Induced Corrosion



Dual-Action Organofunctional Corrosion Inhibitor And Water Repellent Treatment



Concrete

ISO-TEK® 8511 is Surface Applied



Iso-Tek 8511 Completely Penetrates Forming a Protective Passivating Coating that Chemically Bonds with Steel Reinforcement and Simultaneously Leaving the Surface Hydrophobic



Technical Data Sheet

Sections

07 07 19 16
Water Repellents

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 35°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 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

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 - (continued)

3. Two wet-on-wet coats are needed to ensure complete coverage. Note: a third coat may be necessary depending upon the application. Verify coverage with a KreteTek product representative prior to application. Apply with a solvent-resistant 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 product 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.

Clean Up

Clean equipment and tools with xylene. 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. For medical emergencies only, call ChemTrec (1-800-424-9300).



Technical Data Sheet

Sections

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APPLICATION

Best Performance (application notes)

- 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 - 250 square feet per gallon. 2 coats: 75 - 125 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

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 Guide 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.

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