

Technical Data Sheet

Sections

07 07 19 16
Water Repellents

03 03 35 00
Concrete Finishing

LITHI-TEK® 9500

A HIGH PERFORMANCE PENETRATING CONCRETE SEALER THAT DENSIFIES, STRENGTHENS AND WATERPROOFS CONCRETE RESISTING MOISTURE AND VAPOR INTRUSION.

Description

Lithi-Tek® 9500 is a high performance, deep penetrating concrete & masonry waterproofing sealer plus densifier designed to resist water and moisture intrusion.

With it's proprietary reactive agent & through the latest advances in nano technology, its smaller molecular structure, penetrates deep into the substrate forming an insoluble crystalline structure within the pores and capillaries increasing the density while the change of the surface tension creates a surface environment that is hydrophobic sealing the concrete from the inside out.

Lithi-Tek® 9500 dries completely invisible, leaving the concretes appearance completely natural and forms an effective barrier within the concrete resisting surface erosion and water absorption putting and end to water & moisture intrusion.

Actives

50%

Appearance/color

Clear

Coverage

(Lithi-Tek® 9500 is concentrated)

150-400 ft²/gallon once reconstituted

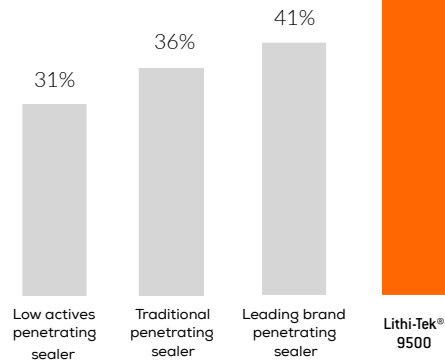
DEPTH OF PENETRATION
WATER REPELLENCY AND WEATHERING

Meets the requirements of:

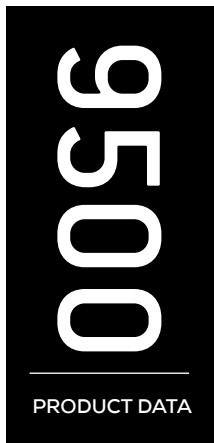
- ASTM E-96, ASTM C-1353
- ASTM C-779, ASTM C-642,
- ASTM E-303, OHD L-34



49%



Percentage Improvement vs. Control



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TECHNOLOGY // ADVANTAGES

- **100% reactive** - Hardens, densifies and waterproofs concrete, resisting water absorption, prolonging service life
- **Increases abrasion resistant** - Tightly binds together concrete reducing concrete dusting. Provides ease of maintenance to provide long-lasting protection on substrates subject to traffic
- **Small molecular structure** - allows for deeper penetration and increased performance
- **Prevents ASR attacks** - by preventing the ingress of water
- **Provides increased protection** - as a hydrophobic barrier to prevent future penetration of water and soluble aggressive agents
- **Reduction of water ingress** - moisture intrusion and vapor transmission
- **Does not alter surface appearance** - the treated surface is natural, tack-free and slip-resistant and dries completely clear
- **Resists organic growth** - mold, mildew, lichen, efflorescence and dirt pick up
- **100% breathable** - allows moisture to escape without damaging the sealer
- **Water-based** - proprietary environmentally friendly formula with no odor, no VOC's
- **Excellent penetration depth** - into any concrete substrate

- **Improves durability** - Prevents capillary uptake of water and the aggressive substances dissolved in it
- **Natural flat finish** - Does not change concrete's surface appearance
- **Super UV stable** - resistant to ultra-violet radiation, will not yellow or fade
- **Unrivaled industry leading 100 year warranty** - Penetrates never delaminates, never diffuses, peel or flakes will not discolor yellow or degrade from UV light exposure.
- **Can be applied to cured and honed concrete** - Ideal for horizontal surfaces exposed to pedestrian and vehicle traffic

TYPICAL PROPERTIES

Appearance - Transparent clear liquid

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

VOC'S - 0g/L

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



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TESTING DATA

TEST METHOD
<p>ASTM WK 24567 Standard test method for soluble silicate densifiers, chemical hardening treatments, and waterproofing treatments for hardened concrete.</p>
<p>ASTM C 39 Standard test method for compressive strength of cylindrical concrete specimens</p>
<p>ASTM E 303 Standard test method for measuring surface friction (BPT).</p>
<p>ASTM D 6490 Standard test method for water vapor transmission or non film forming agents</p>
<p>ASTM E 514 Standard test method for water penetration and leakage through masonry</p>
<p>ASTM D 6532 Standard test method for evaluation of clear water repellents on water absorption in concrete</p>
<p>ASTM C642 Standard test method for density, absorption and voids in hardened concrete</p>
<p>ASTM C 779 Standard test method for abrasion resistance of horizontal concrete surfaces</p>
<p>ASTM C 779 Standard test method for abrasion resistance of horizontal concrete surfaces</p>

TYPE	RESULTS
Density of substrate and water repellency	Pass in
Compression test, 3000 psi	
Untreated	3150 psi
Treated	4250 psi
Skid Resistance Troweled Concrete	
Untreated	90
Treated	90
Water Vapor Transmission	
WVT (grains/h/ft ²)	1.4
Permeance (perms)	3.4
Water Penetration of Masonry, % Reduction	
Dampness	100
Leakage	100
Water Exclusion, %	
Concrete	79
Brick	88
Water Absorption, %	
48 hours	0.27
50 days	.56
Abrasion Resistance, depth of wear, in (mm) 30 minutes	
untreated concrete	0.0264 (0.7)
Lithi-Tek® 9500 treated	0.0025 (0.06)
Abrasion Resistance, depth of wear, in (mm) 60 minutes	
untreated concrete	0.0428 (1.1)
Lithi-Tek® 9500 treated	0.0106 (0.27)

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 .

9500
PRODUCT DATA

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APPLICATIONS // SUBSTRATES

Applications

- Interior // exterior concrete
- Horizontal // vertical substrates
- Concrete parapet caps
- Concrete ramps and barriers
- Parking garages
- Stadiums and buildings
- Concrete driveways, loading docks, public sidewalks, garages and shops floors.
- Plazas
- Warehouses

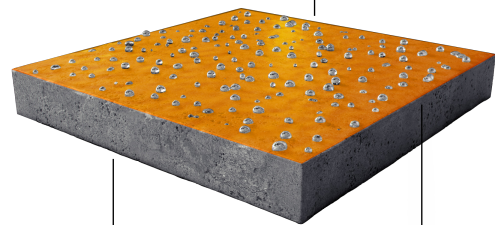
Substrates

- Poured and cast in place concrete

Untreated Concrete, Showing Water Intrusion



Water And Capillary Uptake Repelled By Ghostshield



Concrete

Lithi-Tek® 9500
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. If acid was used to clean the concrete, neutralize the surface and rinse with water prior to application. 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 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. 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.

Application - (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 in a uniformed manner not exceeding the substrates absorption rate and let the first coat penetrate for 5-10 minutes then reapply a second coat in the same manner. Less material will be needed for the second coat. Roll or broom out any puddles until the sealer penetrates the substrate. **Do not over apply** (Over application may result in whitening of the surface). 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.

Clean Up

Clean equipment and tools 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.



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APPLICATION

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.
- Do not use on extremely porous concrete or masonry such as CMU block.
- **Do not over apply. Sealer is highly reactive. Excess material may result in a white residue or discoloration.**
- Does not protect against equipment leaks such as oils and hydraulic fluids.
- Make sure the most current versions of product data sheets and SDS are being used.

Coverage

Lithi-Tek® 9500 is concentrated. 1 coat: 1000 - 1200 square feet. 2 coats: 500 - 600 square feet. 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

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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.

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For professional use only.

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