



V-SEAL® 101 Epoxy Reinforcement Concrete Cure + Sealer

PRODUCT INFORMATION		Revised 8/09
PRODUCT DESCRIPTION	RECOMMENDED USES	
<p>V-SEAL® 101 EPOXY REINFORCEMENT is a blend of proprietary epoxy resins that when mixed with V-SEAL® 101 create a technological breakthrough: the penetrating power of V-SEAL® 101 silicate for penetrating protection and a unique silane-epoxy copolymer compound for long term topical protection. This exceptional blendable additive is synergistic V-SEAL® 101 and confers significant benefits to the concrete treatment. These Benefits are:</p> <ul style="list-style-type: none"> • True chemical bond cross-linking between the silicates, the epoxy group, and elements of cement, sand and stone. • Increased solids content of the system seals with permanent bonding and greater efficiency for improved water repellency and stain resistance. • The epoxy-enhanced surface is soil and stain resistant to both water and oil contamination. This is an improvement over siloxane sealers which are oils in actual chemistry and therefore attract oil. • Unlike many concrete treatments V-SEAL® 101+ER retains its very small molecular structure and therefore penetrates exceptionally well. The resulting consolidation and increased hardness resists scraping and spalling much better than the soft acrylics and siloxanes. • The V-SEAL® 101+ER surface is extremely resistant to chloride and salt contamination. The treated concrete is an “epoxy reinforced” cross-linking to non-ionic elements in the substrate. • V-SEAL® 101+ER is highly cost-effective. <p>V-SEAL® 101+ER is an on- site blend of the proprietary ER copolymer to the V-SEAL® 101. Blending is rapid and without viscosity shift. This blend is stable for 12 hrs. APPLICATION is by brush, spray or roll over contamination-free surfaces. Application rates will depend on the substrate porosity.</p>	<p>For use on most cementitious applications including:</p> <ul style="list-style-type: none"> • <u>New construction</u> – as cure + sealer meets or exceeds ASTM 309 and 1315 and contains internal and topical film forming resins. • <u>Existing concrete</u> – as a great Deep Penetrating Sealer • Commercial Concrete Applications <ul style="list-style-type: none"> • <u>Split-Face block / Pavers /Below grade / pre-cast / tilt-up / form / bridge decks / exposed aggregate when cement paste visible</u> • • Ideal for: Driveways/Walkways/Basements Concrete Pavers / Stamped Concrete Masonry products / Mortar Pool decking / Marcite / Gunite/Stucco Bridges / Tunnels / Foundations Parking Garages / Warehouse Floors • Decorative Concrete Applications • Preservation / Historical Preservation 	
LIMITATIONS/REGULATORY	SAFETY/FIRST AID PRECAUTIONS	
<p>V-SEAL® 101+ER is designed for porous concrete substrates and will not work with any other product with an oil base, such as asphalt, paints, vinyl, etc. When penetrating sealer cannot penetrate or is over applied, a slight chalky residue may lay on surface which does not affect sealer performance and which will dissipate with normal wear of power wash.</p> <p>This product is considered a non-hazardous chemical under the OSHA Hazard Communication Standard / (29CFR 1910.1200)</p> <p>Transportation Classification: 55 US DOT Hazard Class – Non Regulated</p>	<p><u>Avoid contact with skin & eyes.</u> EPA/OSHA Compliant – contains no solvents/0% VOC (Volatile Organic Compounds) Non-Hazardous to plants and animals. Wash application materials with water. <u>First Aid:</u> Eyes: Flush with water for at least 15 minutes. Skin: Wash thoroughly with soap and water. Inhalation: No TVL established. Move subject to fresh air. Digestion: If swallowed, give 2 glasses of water to drink. Consult physician.</p>	



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PRODUCT CHARACTERISTICS	PERFORMANCE CHARACTERISTICS
<p>Finish: Flat Color: Clear Average Spread Rate : 175-250 sq. ft. coverage per one gallon Drying Time: 3 – 5 hours per application Shelf Life: 2 years, stored unopened above freezing temperature * 72 hours after mixing in ER copolymer Clean Up: soap & water (avoid contact with glass & plastic windows & lenses) Note: * DO NOT FREEZE MSDS Information/Physical Data: Boiling Point: 212 F (same as water) Vapor Pressure: /20C/68 F water Vapor Density: N/A Solubility in Water: Excellent Evaporation Rate: Same as water Appearance & Odor: Clear-slightly amine Specific Gravity: (H2O-1):1.1 to 1.3 @ 20C % Volatile by Volume: N/A PH: 11.5 Flashpoint: N/A Flammable Limits: N/A</p>	<p>ASTMD 2939: Resistance to water solubility, flexibility, no cracking. ASTMD 466: Resistance to water flow and Action. Excellent adhesion. No re-emulsification. ASTME 96: Water vapor transmission 0.03 grains/sq ft/hr. Water permeability–0102 or less perms ASTMC 836: Film thickness on a vertical scale SS-W-110C: Water repellence on masonry test: 1.925% avg. ASTMC672: Freeze/thaw cycle – 100 day cycle ASTMC-156: Water retention 0.4 kg/m2, Specification – 0.55 kg/m2 ASTM C309-98a: Moisture loss – 1025 kg/m2 ASTM 1315 6.6.4: 1000 megajoules/235 nM Uvlight 90 Day Ponding: Passed UV-Testing (modified): No change-Excellent results Adhesion ASTM: Elcometer Pull – 280 lbs-concrete failed 1st / no delamination ASTM C642 & C672 Absorption: Phase 1-48 hr: 0.5%; Phase 2-50 day: 1.0% ASTM Sealing Resistance: No Scaling Weight Gain Absorbed Chloride: Less than 10%</p>
RECOMMENDED SYSTEMS	SURFACE PREPARATION
<p><u>New Concrete: Use as the Cure & the Sealer</u> Ideally, the best time to apply is when bleed water is gone and concrete will withstand the weight of a man, but it is also beneficial to apply anytime after placement. Avoid rain or freezing for 12 hours. Apply by low-pressure sprayer with light to medium saturation. Do not to over apply. Broom out excess or collecting areas. <i>* We recommend a maintenance mist after the 28-45 day curing cycle completes, if possible, for best results.</i> <u>Old Concrete: Use as a Penetrating Protective Sealer</u> Always clean, rinse thoroughly, especially when using oil/citrus base cleaners. Flush out well, let dry and apply by low-pressure spray. Acid etching may be necessary for tight or smooth troweled surfaces to aid in penetration. <i>* Always test first for penetration acceptability.</i> Pavers, Split Face Block, Gunite, Stucco, Plaster, Mortar, Marcite, Grout.....Same Wood....No Metal....No Plastic...No <i>Always test for porosity in all scenarios.</i> <i>Do not walk on wet sealer.</i> V-SEAL Concrete Sealers Emergency: 800-255-3924 / Information 877-738-7325 Web site: www.vseal.com Email: info@vseal.com</p>	<p>Since V-SEAL® is a deep-penetrating sealer, the surface it is to be applied to must be clean and porous enough to allow penetration into the substrate. Surfaces should be clean and free of dirt/debris/mildew/oils/grease/and other sealers that may have been used.</p> <p style="text-align: center;">COLOR</p> <p>V-SEAL® 101+ER is dries clear and flat.</p> <p style="text-align: center;">APPLICATION CONDITIONS</p> <p>Surface should be dry when possible. Surface/outside temperature should be 40 degrees or more. V-SEAL® is rendered ineffective after freezing. *DO NOT FREEZE* Apply by low-pressure sprayer or roller. Broom or back-roll may increase performance. Do not walk on wet sealer. Apply an even blanket mist just to wet – not soak. When over applied, white, chalky deposits may appear after drying which do not affect sealer performance and which dissipate with normal wear of power wash.</p> <p style="text-align: center;">ER additive Mixing Instructions</p> <p>Shake one 10 oz. EPOXY REINFORCEMENT bottle well; pour into one V-SEAL® 101 5- gallon pail. Shake 5-gallon pail well. Let stand appx. 5min. Appx. 12 hr pot life. Mix only for same day use.</p>