STARSEAL® GUARD
ONE STEP CURE AND PENETRATING WATER REPELLENT SEALER
STAIN PROTECTION • COST EFFECTIVE

DESCRIPTION
STARSEAL GUARD is a water base clear innovative one step penetrating silane water repellent cure and seal that can be applied to new or existing concrete. It immediately penetrates the pores and capillaries of the concrete reacting with the alkali and moisture to form a repellent hydrophobic gel in the pores and a water retentive membrane on the surface.

This membrane, which meets ASTM curing requirements and the Chloride Ion Penetration requirements of NCHRP 244 forms a film that restricts moisture loss allowing concrete to reach maximum hardness and reduces staining, chloride penetration, prevents intrusion of water, salts, deicer chemicals and acids that can result in costly damage to concrete and masonry.

This innovative one-step product eliminates the costly removal of curing compounds and time consuming water curing of fresh concrete when a protective penetrating water repellent sealer is desired. Once applied, the surface is properly cured and water repellent in one application and puts concrete into service weeks sooner.

BENEFITS
- Complete projects faster
- Seal & Protect against damage from salt and moisture
- Seals out water, oil, grease and other stains. See TN107A.
- Produce stronger, more durable and longer lasting concrete
- Cures fresh concrete
- Meets industry standards
- Cost effective
- Vexcon breathable technology
- Deep penetration for maximum protection
- Quick formation of surface repellency and chemical resistance
- Low odor
- Non-yellowing

RECOMMENDED FOR
New and existing concrete requiring the long term protection of a water repellent penetrating sealer and a high performance wear and stain resistant protective coating. It may be used as a water and stain repellent on vertical surfaces, on cast-in-place and pre-cast concrete or concrete block.

SHORT SPECIFICATION
[03 35 00] [03 39 00] [07 19 13]: Basis of design, VOC compliant, water base clear silane/acrylic curing and sealing compound, water and stain repellent. Meet or exceed NCHRP 244 series IV and ASTM C642 tests, reducing water and salt penetration by > 85%. Conforming to ASTM C-1315 type 1 Class A, ASTM C309/AASHTO MI48 type 1 Class A & B as manufactured by Vexcon Chemicals

SPECIFICATIONS/COMPLIANCE
- VOC < 250 grams/liter or < 2.08 #/gal
- Meets:
  - US EPA AIM: Concrete Curing and Sealing Compounds
  - OTC, LADCO/MRPO, CEPA/EC – Waterproofing Sealers
  - CARB – Reactive Penetrating Sealers
  - SCAQMD – Reactive Penetrating Sealers
- ASTM C309 & AASHTO MI48 Type 1 Class A & B
- ASTM C1315 - Sec 6.41 – Class A, Type 1
- ASTM E96 Water Vapor Permeability - 94%
- ASTM C457 Depth of Penetration - 0.18-0.21”
- ASTM C642 Water Absorption Reduction in Hardened Concrete - 89%
- NCHRP 244 Series IV Reduction of Absorbed Chloride into Concrete - Series IV > 85%
- Meets OSHA/ADA non-slip requirements.
- CSI : [03 35 00], [03 39 00], [07 19 13]
- USDA approved

APPLICATION NOTES
- Prior to application a test area should be performed to determine proper application rate, techniques and required surface preparation.
- Application of StarSeal Guard may be done with a short 1/4” nap roller, brush or low-pressure industrial sprayer with neoprene fitting.
- Use a roller pan to take off excess product. Do not dip and roll or pour and spread.
- The product is supplied ready to use, do not dilute.
- Do not apply over free standing water.
- Application to damp surfaces is acceptable.

COVERAGE/ESTIMATING
Porosity and texture of the surface will affect the amount of material necessary for effective treatment. The following is a guide for estimating material requirements for concrete. Perform a test area to determine proper application rate.

<table>
<thead>
<tr>
<th>Material Requirement</th>
<th>New</th>
<th>Existing</th>
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</thead>
<tbody>
<tr>
<td>First Coat (sq.ft/gal)</td>
<td>125-150</td>
<td>250-300</td>
</tr>
<tr>
<td>Second Coat (sq.ft/gal)</td>
<td>300-400</td>
<td>400-500</td>
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</tbody>
</table>

SURFACE PREPARATION
- The surface should be properly cleaned. Use one of Vexcon’s surface preparation and cleaning products to properly clean the surface prior to application.
- The surface should be properly repaired and structurally sound. Use a Vexcon repair mortar to correct any surface defects.
- Large cracks should be repaired using PowerCoat® Epoxy Flexible Joint Sealant
- All caulking, patching and joint sealants should be installed in accordance with ACI standard specifications.
Curing and Sealing New Concrete

- Apply StarSeal Guard after the concrete has received final finishing and all gauging water has been absorbed and concrete can be walked on. See Coverage Section for first coat application rate.
- Apply in a single saturating application with sufficient material applied so that the surface remains wet for a few minutes before penetration.
- Surface residues, pools and puddles should be evened out until they completely penetrate into the surface.

Sealing Existing Concrete

- Apply in a single saturating application with sufficient material applied so that the surface remains wet for a few minutes before penetration.
- Surface residues, pools and puddles should be evened out until they completely penetrate into the surface.
- To determine that the concrete is penetrable perform a water absorbency test by applying water to a representative portion of the prepared concrete floor. A properly prepared surface when dry will immediately absorb clean water without any surface beading effects.
- If required use Certi-Vex Etch & Efflorescence Remover to improve penetration.
- The concrete should be coated at coverage rate described below and allowed to completely penetrate the surface with no puddles, ponding or wet spots.

Second Coat

- A second coat is recommended if the initial first coat is damaged or a higher gloss protective top coat is desired.
- Before applying a second coat, the concrete surface should be cleaned free of dust, surface dirt and contaminants.
- Concrete that has become heavily contaminated with surface dirt, tire marks, oil, etc., during construction may require thorough cleaning for best performance of the second coat. See Coverage Section.

Application Vertical

- Begin application from the highest point; top to bottom.
- Roll or spray sufficient product to completely absorb and cover the surface.
- Succeeding passes must lap the previous run down. Do not over apply.
- Do not allow excess product to build on surface. Coverage depends on porosity.
- Check dried area for absorption and apply a second coat if necessary. For best coverage, apply the second coat perpendicular/90° to the first coat.

Maintenance

Spills should be removed promptly and cleaned with Certi-Vex Super Degreaser. Floors should be cleaned regularly. Periodic reaplication may be required as the sealer wears off.

Warranty

- Warranty: All products are sold subject to Vexcon’s published materials Limited Warranty and Terms and Conditions of Sale and can be changed without notice. You may view our Warranty’s and Terms and Conditions of Sale at vexcon.com.

Special Notes

- The product should be stored in sealed containers and kept away from extreme heat.
- Protect application area from rain for 4 hours.
- May show rubber burns.
- May cause bleeding on bituminous surfaces.
- May cause mottling of colored surfaces.
- Not gasoline resistant. Use Vexcon PowerCoat Epoxy LD

Equipment clean up: Use Certi-Vex Equipment Cleaner.

- Can apply when surface temperatures are 20°F - 85°F (-6°C - 29°C).
- When below or above these ranges review Vexcon’s Hot and Cold Weather Application Guides. Available at vexcon.com

- Do not topcoat without consulting Vexcon Chemicals.
- Shelf life: If properly stored in its original sealed container, three years from date of manufacture. Rotate your Stock.
- For use by experienced contractors.

- Adjoining glass, metal and painted surfaces should be protected from over spray. Inadvertent splashes should be removed using Certi-Vex Equipment Cleaner before the solution has dried on the surface.
- Proper application of Vexcon material is the responsibility of the installer or user. Telephone consultation and/or field visits by Vexcon personnel are for the sole purpose of making technical recommendations only, and not for providing quality control or supervision on location.

Packaging

StarSeal Guard is available in 55-gallon drums and 5-gallon pails. Contact Vexcon to discuss your customized packaging requirements.

Physical Properties

- Color: Clear
- Dry Time: <6 hours
- Wt/Gallon: 8.04# dry
- Solids: Minimum 30%

Note: Dry time and curing time depends on air temperature and film thickness. All calculations based upon 68-77°F (20-25°C) @ 50% RH. Low temperatures, relative humidity and wind will extend dry time.

Health and Safety

- Use only with adequate ventilation.
- Use of gloves, goggles and other protective clothing is advised when using this product.
- If swallowed, do not induce vomiting.
- Use of respirators is advised when using in confined areas.

Vexcon SDS PS132 is an integral part of the safety and application of our product. A short synopsis is provided in this product data sheet. Before using product, obtain a copy of the SDS at vexcon.com.

Contact Us@

Additional product information, technical assistance and customer service are available by contacting Vexcon Chemicals directly or our distributors.

- vexcon.com
- techservice@vexcon.com
- customerservice@vexcon.com
- sales@vexcon.com
- Voice: 888.839.2661
- Fax: 215.332.999

Warranty

LIMITED WARRANTY: Vexcon warrants for a period of one (1) year from the date of manufacture that the goods supplied hereunder shall be of its standard quality and free of defects, and conforms to (a) Vexcon’s published specifications in force on the date of acceptance by Vexcon of the order and (b) the sample which has been made available for testing by buyer prior to sale. Any claim under this warranty must be made in writing to Vexcon Chemicals within thirty (30) days after such non-conformity is first discovered. As the EXCLUSIVE REMEDY for any breach of this Limited Warranty, Vexcon at its option shall replace nonconforming goods or refund the purchase price. These methods of use and application are beyond Vexcon’s control, this Limited Warranty is IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THOSE CONCERNING MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THIS LIMITED WARRANTY IS ALSO IN LIEU OF ANY OTHER POSSIBLE LIABILITIES OF Vexcon, WHETHER ALLEGED TO ARISE BY AGREEMENT OR BY OPERATION OF LAW, RESPECTING THE SALE, APPLICATION, USE OR FUNCTION OF Vexcon’S PRODUCTS, INCLUDING BUT NOT LIMITED TO CLAIMS OF NEGLIGENCE, GROSS NEGLIGENCE, ASSURANCE, STORAGE DAMAGE, MISAPPLICATION, ACCIDENT, STRICT LIABILITY OR ANY OTHER TORT. No person is authorized by Vexcon to assume for it any other liability of any kind in connection with the sale or use of products manufactured and sold by it, and there are no oral agreements or warranties written to or affecting any sale or use. All of the foregoing arises under the substantive law of Pennsylvania without regard to principles of conflict of laws.

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