CERTI-VEX® GUARD CHEMICALLY ACTIVE CONCRETE STAIN (CACS)
ONE STEP CURE AND COLORED PENETRATING WATER REPELLENT SEALER
STAIN PROTECTION • HORIZONTAL AND VERTICAL

DESCRIPTION
Cert-Vex Guard CACS is a colored, ready to use, breathable one-step penetrating water repellent cure and sealer that provides maximum long term protection and a decorative appearance to concrete and masonry surfaces. Water and dissolved salts bead after 24 hours, Chloride Ion intrusion is reduced; protects against staining and damage caused by water, salts, deicer chemicals and acids.

Applied on new or existing horizontal and vertical surfaces, it immediately penetrates the pores and capillaries of the concrete, reacting with the alkali and moisture to form a hydrophobic gel in the pores and a colored water retentive coating which seals the surface. 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
• Improved long term protection to exterior concrete from water and salt damage
• Enhances surface appearance
• Available in 50 standard plus custom colors. See Vexcon Color Systems Chart
• Vexcon breathable technology
• Cures fresh concrete
• Minimizes crazing and shrinkage cracks
• Deep penetration for maximum protection
• Complete projects faster
• Reduced labor costs
• Quick formation of surface repellency and chemical resistance
• Non-yellowing
• Excellent color retention (fade resistant)

RECOMMENDED FOR
New and existing concrete or masonry that requires a colored decorative high-performing finish with the long term protection of a water repellent sealer and a high performance stain resistant film. It may be used as a water repellent on horizontal and vertical surfaces, cast-in-place, tilt-up and pre-cast concrete, and concrete block.

SHORT SPECIFICATION
[03 39 00] [03 35 00] [07 19 00] [09 97 23]: Basis of design: VOC compliant, colored silane/acrylic [Concrete Curing] [Concrete Finishing] [Water Repellent] [Exterior Staining and Finishing] [Concrete and Masonry Coating] stain resistant, non yellowing and non-fading conforming to NCHRP 244, Series IV, ASTM C 309 and ASTM C 1315 Type 1, Class A. Manufactured by Vexcon Chemicals

MAINTENANCE
Spills should be removed promptly and cleaned with Certi-Vex Super Degreaser & Cleaner. Floors should be cleaned regularly. Periodic reapplication may be required as the sealer wears.

PHYSICAL PROPERTIES/DRY TIMES
• Tack Free: 4 hours
• Foot Traffic: Overnight
• Vehicle Traffic: 72 hrs

SPECIFICATION/COMPLIANCE
• VOC - <400 grams/liter or <3.36#/gal.
• Meets:
  – US EPA AIM - Waterproofing Sealers and Treatments
  – OTC, LADCO/MRPO, CEPA/EC - Waterproofing Concrete/Masonry Sealers
  – Chloride Ion Reduction using NCHRP 244 series IV and Moisture Vapor Transmission
  – ASTM C1315, Type I, Class A
  – ASTM C309, Type I, Class A&B
  – Meets OSHA and ADA Non-slip (ASTM D2047)
  – USDA approved
  – CSI Reference: [03 35 00], [03 39 00], [07 19 13], [09 97 23].

SURFACE PREPARATION
• Surfaces should be cleaned using Certi-Vex Super Degreaser & Cleaner.
• Remove efflorescence and laitance using Certi-Vex Etch & Efflorescence Remover or StarSeal Masonry & Restoration Cleaner, then neutralize with StarSeal EF Neutralizing Rinse & Cleaner.
• On old or existing masonry or concrete surfaces where there is loose scaly residue, sandblasting or wire brushing may be necessary.
• Small cracks, voids and blemishes may be filled by troweling Certi-Vex Patch RTU with a large flat bladed spatula. Large holes and damaged areas should be repaired by grouting or trowel filling with one of Vexcon’s repair mortars.
• After thorough cleaning, remove all water and residue and inspect the surface. Test for water absorption by applying water to a portion of the prepared area. Properly prepared dry surfaces immediately absorb water without beading.

HORIZONTAL: Existing coatings should be removed using Certi-Vex Concrete Stripper.

VERTICAL: Existing coatings should be removed using Certi-Vex Concrete Stripper Vertical.

APPLICATION HORIZONTAL
The concrete surface must be properly repaired, structurally sound and cleaned. See Surface Preparation section.
• Prior to application a test area must be performed to determine proper application rate and techniques and required surface preparation.
• Apply with a short 1/4" nap roller, brush or low pressure industrial sprayer with neoprene fitting.
• Thoroughly mix before each application using a Jiffy-type mixer.
• Mechanically shaking is not adequate.
• Use a roller pan to take off excess product. Do not dip and roll, or pour and spread.
• Do not dilute.
• Apply in a single saturating application with sufficient material applied so that the surface remains wet for a few minutes before penetration into the concrete.
• Same lot numbers should be used throughout the project. If lot numbers differ, box mix prior to use.
• A uniform protective color finish can be obtained by simply leaving the final coat untouched after application.
• For best coverage, apply the second coat perpendicular/90° to the first coat.
APPLICATION VERTICAL
The concrete surface must be properly repaired, structurally sound and cleaned. See Surface Preparation section.
- Begin application from the highest point; top to bottom.
- Roll or spray sufficient product to completely absorb and cover the surface area.
- 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; see Coverage Section.
- 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.

CURING, SEALING AND STAINING NEW CONCRETE
- To cure fresh newly poured concrete, apply Certi-Vex Guard CACS 1 hour after gauging water has been absorbed following the final troweling; @ 125 sq.ft./gal (3.07 m²/L).
- Do not apply over free-standing water.
- A second coat should be applied 72 hours later, at a rate of 250-300 sq.ft./gal. to provide for maximum chloride ion protection, even out the color, and achieve a uniform appearance. For best coverage, apply the second coat perpendicular/90° to the first coat.
- If a liquid membrane curing compound has been used to cure the concrete, the surface can be water blasted to remove the coating and any dirt, dust, and contaminants; or use Certi-Vex Concrete Stripper. If the concrete has been water cured, the concrete must be free of any dirt, dust and contaminants, and water blasting is recommended prior to the application.
- Surface residues, pools and puddles should be evened out until they completely penetrate into the surface.

SEALING AND STAINING EXISTING CONCRETE/MASONRY
- Certi-Vex Guard CACS can be used on untreated concrete that has been cured with Certi-Vex Guard / Guard CACS or treated with Penseal or Powerseal protective treatments.
- 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.
- Application to still damp surfaces is acceptable; however, free-standing water must be removed.
- The concrete should be coated with Certi-Vex Guard CACS at coverage rate described below and allowed to completely penetrate the surface with no puddles, ponding or wet spots.

COVERAGE RATES / ESTIMATING
Porosity and texture of the surface will affect the amount of material necessary for effective treatment. The following is a guide for estimating total material requirements. Always perform a test area to determine proper application rate. A second coat should be applied 72 hours later, at a rate of 250-300 sq.ft./gal. to provide for maximum chloride ion protection, even out the color, and achieve a uniform appearance. For best coverage, apply the second coat perpendicular (90°) to the first coat.

<table>
<thead>
<tr>
<th>Surface</th>
<th>First Coat</th>
<th>Second Coat</th>
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</thead>
<tbody>
<tr>
<td>Porous Concrete</td>
<td>200-400 sq.ft./gal. (4.91-9.82 m²/L)</td>
<td>200-400 sq.ft./gal. (4.91-9.82 m²/L)</td>
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<tr>
<td>Dense Concrete</td>
<td>500-600 sq.ft./gal. (12.27-14.73m²/L)</td>
<td>500-600 sq.ft./gal. (12.27-14.73m²/L)</td>
</tr>
<tr>
<td>Vertical</td>
<td>200-300 sq.ft./gal. (4.91-7.36m²/L)</td>
<td>200-300 sq.ft./gal. (4.91-7.36m²/L)</td>
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<tr>
<td>Pre-Cast, CIP or Block/CMU:</td>
<td></td>
<td></td>
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<tr>
<td>Smooth-faced</td>
<td>130-150 sq.ft./gal. (3.19-3.68 m²/L)</td>
<td>130-150 sq.ft./gal. (3.19-3.68 m²/L)</td>
</tr>
<tr>
<td>Split-faced</td>
<td>100 sq.ft./gal. (2.45m²/L)</td>
<td>100 sq.ft./gal. (2.45 m²/L)</td>
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PACKAGING
Certi-Vex Guard CACS is available in 50-gallon drums and 5-gallon pails. Contact Vexcon to discuss your customized packaging requirements.

SPECIAL NOTES
- The product should be stored in sealed containers and kept away from extreme heat.
- Protect application area from rain for 4 to 6 hours.
- May cause bleeding on bituminous surfaces.
- Clear version available, Certi-Vex Guard Clear.
- 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. When below or above these ranges review Vexcon's Cold and Hot Weather Application Guides.
- Do not topcoat without consulting Vexcon Chemicals.
- Shelf Life: If properly stored in its original sealed container, 3 years from date of manufacture. Rotate your stock.
- For use by experienced contractors.
- 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.

PERFORMANCE DATA

<table>
<thead>
<tr>
<th>Absorption and Vapor Transmission –</th>
<th>1st coat after 72 hrs. – Froehling &amp; Robertson Test Report 75P0343-201301062</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moisture Vapor Transmission (%MVT)</td>
<td>15% NaCl Solution, Absorption 10.58%</td>
</tr>
<tr>
<td>Depth of Penetration</td>
<td>17 to 23 inches</td>
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<tr>
<td>Water Absorption</td>
<td>88.9% reduction</td>
</tr>
<tr>
<td>Utah Salt Mixture</td>
<td>304 cycles, 3.1% weight loss</td>
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<tr>
<td>ASTM C-642 Sor Testing Laboratories Report 96-5514</td>
<td></td>
</tr>
<tr>
<td>24 hr Immersion</td>
<td>100% reduction</td>
</tr>
<tr>
<td>7 day Immersion</td>
<td>98.1% reduction</td>
</tr>
<tr>
<td>5hr. Boil</td>
<td>74% reduction</td>
</tr>
<tr>
<td>ASTM C-156-95 Water Retention by Concrete Curing Materials (ASTM C-309)</td>
<td></td>
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<tr>
<td>Water Retention</td>
<td>0.37 kg/m²</td>
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</tbody>
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CHEMICAL RESISTANCE
Resistant to most common acids, salts and alkalis. For more Chemical Resistance information go to vexcon.com.

HEALTH AND SAFETY CAUTION: FLAMMABLE LIQUID
- Resin solution, flammable liquid, red label.
- Use of respirators is mandatory when using this product in confined areas.
- Use of respirators is mandatory when using this product in confined areas.
- Use for emergency services.
- If swallowed, do not induce vomiting.
- Use of gloves, goggles and other protective clothing is advised when using this product. Vexcon SDS is an integral part of the safety and application of our product. A short synopsis is provided in this product data sheet. Before using this Vexcon product it is advisable to obtain a copy of the SDS from your distributor or by contacting Vexcon Chemicals.

CONTACT US @
Additional product information, technical and customer services are available by contacting Vexcon Chemicals directly or our distributors.
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