



**VEXCON**  
CHEMICALS, INC.

Concrete solutions for architects, engineers and builders since 1974  
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# CERTI-VEX<sup>®</sup> GUARD CHEMICALLY ACTIVE CONCRETE STAIN (CACS) ONE STEP CURE AND COLORED PENETRATING WATER REPELLENT SEALER STAIN PROTECTION • HORIZONTAL AND VERTICAL

## DESCRIPTION

Certi-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 ASTM C309 and C1315 coating which seals the surface.

This innovative one-step product eliminates the costly removal of curing compounds and time consuming water curing and leaves the surface cured and water repellent in one application. The final film has excellent moisture vapor transmission rates while excluding water and chloride ion penetration.

## BENEFITS

- Easy one-step ready to use application
- Available in 50 standard plus custom colors. See Vexcon Color Systems Chart
- Cures fresh concrete
- Advanced stain protection
- An effective chloride screen
- Especially suitable for alkaline concrete surfaces
- Prolongs the surface life and prevents damage from within by maintaining vapor permeability of concrete
- Horizontal and vertical surfaces
- Quick formation of surface repellency and chemical resistance
- Non-yellowing
- Deep penetration for maximum protection
- Seals and hardens surface, reducing clean up and maintenance costs
- Excellent color retention (fade resistant)

## RECOMMENDED FOR

Infrastructure, transportation, commercial and residential applications and any 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 93 13] [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

## SPECIFICATION/COMPLIANCE

- VOC - <400 grams/liter or <3.36#/gal.
- Meets:
  - US EPA AIM - Waterproofing Sealers and Treatments
  - OTC - Waterproofing Concrete/Masonry Sealers
  - LADCO - Waterproofing Concrete/Masonry Sealers
  - Canada - Waterproofing Concrete/Masonry Sealers
- Chloride Ion Reduction using NCHRP 244 series IV and Moisture Vapor Transmission
- ASTM C1315, Type 1, Class A
- ASTM C309, Type 1, 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 93 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<sup>®</sup> Masonry & Brick 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 Stripper**.

**VERTICAL:** Existing coatings should be removed using **Certi-Vex 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.
- Certi-Vex Guard CACS should be applied in a single saturating application with sufficient material applied so that the surface remains wet for a few minutes before penetration into the concrete.
- Various staining effects can be obtained by rag wiping, texture brushing, roller stippling and other decorative techniques.
- 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; see Coverage Rates.
- 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 244 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.

<u>Surface</u>	<u>First Coat</u>	<u>Second Coat</u>
Porous Concrete	200-400 sq.ft./gal.	200-400 sq.ft./gal.
Dense Concrete	500-600 sq.ft./gal.	500-600 sq.ft./gal.
Vertical	200-300 sq.ft./gal.	200-300 sq.ft./gal.
<u>Pre-Cast, CIP or Block/CMU:</u>		
Smooth-faced	130-150 sq.ft./gal.	130-150 sq.ft./gal.
Split-faced	100 sq.ft./gal.	100 sq.ft./gal.

## PACKAGING

Certi-Vex Guard CACS is available in 50-gallon drums and 5-gallon pails. Contact Vexcon to discuss your customized packaging requirements.

## 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.

## 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.
- 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

## PHYSICAL PROPERTIES/DRY TIMES

- Tack Free 4 hours
- Foot Traffic Overnight
- Vehicle Traffic 72 hrs

## PERFORMANCE DATA

Water absorption after 14 days soak in 15% sodium chloride solution:

<u>Weight Gain %</u>	<u>CERTI-VEX GUARD CACS</u>	<u>Commercial Siloxane</u>	<u>Uncoated Control</u>
1 coat @ 125 sq.ft./gal; Avg of 5 blocks	1.09%	.95%	8.20%
<u>Factor Measured</u>	<u>Minimum Req.</u>	<u>GUARD CACS</u>	<u>Siloxane vs Reported in literature</u>
% Reduction in water absorption	75%	86.7%	88.4% v 80%
% Reduction of Chloride Ion content	75%	85.7%	70.3% v 78%
Water vapor transmission	100%	104%	116% v 118%

## CHEMICAL RESISTANCE

Resistant to most common acids, salts and alkalis.

## 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 only with adequate ventilation.
- If swallowed, do not induce vomiting.
- Use of gloves, goggles and other protective clothing is advised when using this product. Vexcon MSDS PS107 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 MSDS 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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## WARRANTY

Vexcon warrants that the goods supplied hereunder shall be of its standard quality and shall conform in all material respects to the sample which has been made available for testing by buyer prior to sale. As the EXCLUSIVE REMEDY for any breach of this Limited Warranty, Vexcon shall replace nonconforming goods or refund the purchase price. Since methods of use and application are beyond Vexcon's control, this Limited Warranty IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED 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 OR NEGLIGENCE, GROSS NEGLIGENCE, STRICT LIABILITY OR ANY OTHER TORT. IN NO EVENT SHALL VEXCON BE LIABLE FOR PERSONAL INJURY OR PROPERTY DAMAGE, REAL OR PERSONAL, ATTRIBUTED TO ITS PRODUCTS, NOR FOR ANY EXCAVATION, REMOVAL, REAPPLICATION, DOWN TIMES, CLEANUP, LOSS OF USE, LOSS OF OPPORTUNITY, LOSS OF MARKET VALUE, LOSS OF RENTAL VALUE OR FOR ANY LOSS OF PROFITS OR OTHER SPECIAL, INCIDENTAL, RESULTING, CONSEQUENTIAL OR EXEMPLARY DAMAGES.

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