



# CERTI-VEX<sup>®</sup> GUARD CHEMICALLY ACTIVE CONCRETE STAIN (CACS)

One Step Cure and Colored Penetrating Water Repellent Sealer

ASTM C-1315 • NCHRP-244

VOC Content 540 gr./liter or 4.57#/gal. - Stain

## DESCRIPTION

Vexcon's unique capabilities in Polymer chemistry have produced CACS Styrene Acrylic Silane Polymer which is colored to provide decorative stained concrete with the performance of a penetrating silane water repellent sealer. Water and dissolved salts bead after 24 hours and reduces Chloride Ion intrusion, water, salt, deicer chemicals and acid damage to concrete. Applied on new or existing concrete, 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 water retentive ASTM pigmented film on the surface which cures and seals the concrete. For new concrete this one step product eliminates the costly removal of curing compounds and time consuming water curing. Vexcon CACS yields vibrant colors not typically attainable with other decorative products. The CACS can be sponged, faux painted, mottled and other techniques incorporated into the design to new or existing concrete floors. The final film has excellent moisture vapor transmission (MVT) rates while excluding water and chloride ion penetration.

## BENEFITS

- Available in 15 standard and custom colors. See Vexcon Color Systems Chart
- Cures new concrete
- Decorative, architectural coating
- 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
- Quick formation of surface repellency and chemical resistance
- Re-coatable and healable with solvent wash
- Prevents loss of silane ingredients due to evaporation
- UV resistant
- Low maintenance
- Cost Saving
- Breathable
- Excellent color retention (non-fading)

## SPECIFICATION/COMPLIANCE

- Chloride Ion Reduction using NCHRP 244 series IV and Moisture Vapor Transmission
  - ASTM 1315, Type 1, Class A.
  - ASTM C 309, Type 1, Class A&B
  - Federal specification TT-C-800-A (GSA-FSS) type 1.
  - USDA and ADA Non-slip requirements.
  - T490 penetrating concrete sealer.
  - VOC Compliant 540 gr./liter or 4.57#/gal. - Stain
- Test reports are available upon request.

## APPLICATION

Prior to application a test area must be performed to determine proper application rate and techniques and required surface preparation. Application of Certi-Vex Guard CACS may be done with a short 1/4" nap roller, brush or low-pressure industrial sprayer with neoprene fitting. Thoroughly mix before each use using a jiffy type mixer. Mechanically shaking is not adequate. 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. To protect your floor from ongoing construction dust, dirt and debris, use **CERTI-VEX TALC RELEASE**, data sheet #OP132, until all construction work is completed.

## CURING , SEALING AND STAINING NEW CONCRETE

The concrete should be cured with a first coat of Certi-Vex Guard CACS applied 1 hour after gauging water has been absorbed following the final troweling in accordance with the coverage rates listed herein, see Coverage Section. Do not apply over free standing water. A second coat of Certi-Vex Guard CACS should be applied 72 hours later, at a rate of 250-300 sq.ft. /gal. to provide for maximum chloride ion protection and to even out the color and achieve a uniform appearance. Certi-Vex Guard CACS can be applied over Certi-Vex Guard Clear, contact Vexcon for application details and information. 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, contaminants or use **CERTI-VEX CONCRETE STRIPPER** to remove old sealers, grease and dirt, curing compounds, adhesives, floor waxes and many urethanes and epoxies. 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 of the Certi-Vex CACS Stain. Before application 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. On vertical surfaces the material should be applied to lower surfaces moving upwards to allow a downward flow of excess material. Surface residues, pools and puddles should be broomed out thoroughly until they completely penetrate the surface.

## SEALING AND STAINING EXISTING

### CONCRETE

Certi-Vex Guard CACS can be used on concrete that has been cured with Certi-Vex Guard CACS, Certi-Vex Guard, see data sheet # PS104, or existing treated or untreated concrete. Thoroughly clean the concrete, removing all old films, dirt, oil and laitance with CERTI-VEX® CONCRETE STRIPPER. Flush with water. Remove all water and residue and inspect 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. 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.

### APPLICATION AREAS

Ideal for use on parking structures, athletic stadiums engineered concrete structures, and any new and existing concrete that requires a colored decorative high performing finish. It may be used as water repellent on vertical surfaces.

### MAINTENANCE

Spills should be removed promptly and cleaned with a high quality commercial detergent. Floors should be cleaned regularly. Periodic reapplication may be required as the sealer wears off.

### COVERAGE RATES

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. Always perform a test area to determine proper application rate.

Porous Concrete	100-200 sq.ft. /gal.
Dense Concrete	250-300 sq.ft. /gal.
Block	
Smooth-faced	65-75 sq.ft./gal
Split-faced	50 sq.ft./gal
Brick	100-150 sq.ft. /gal.

### 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 cause bleeding on bituminous surfaces
- Not gasoline resistant. Use **VEXCON POWERCOAT GR C&S**
- 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.
- If properly stored in its original sealed container, 3 years from date of manufacture. Rotate your stock.
- For use by professional applicators.

### VITAL STATISTICS

- Flash Point (TCC): 106° F (41°C)
- Boiling Point (706 mmHg): 310-403 F (154-207°C)
- Autoignition Temp: Above 473° F (245°C)
- Extinguishing Media: Foams, Dry Chemical, CO<sub>2</sub>, Water may be used to reduce the rate of burning and for cooling containers.

## PACKAGING

CERTI-VEX GUARD CACS is available in 55-gallon drums and 5-gallon pails. Contact Vexcon to discuss your customized packaging requirements.

### PHYSICAL PROPERTIES

Tack Free :	4 hours		
Foot Traffic:	Overnight		
Vehicle Traffic:	72 hours		
	<u>Wt./Gal</u> <u>Vol Solids</u> <u>Wt.Solids</u>		
Certi-Vex Guard			
CACS VOC	7.8#	33%	40%
VOC:	4.57 #/gal OR	548 gr./Liter	
NOTE:	VOC regulations for Transparent Stains 550 g/l.		

### HEALTH AND SAFETY

- Use only with adequate ventilation.
- Use of NIOSH/MSHA 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.

CERTI-VEX GUARD CACS contains blended solvent and should be handled accordingly. Do not use near fire or extreme heat and provide good ventilation to avoid buildup of solvent fumes. When applying to the exteriors of occupied buildings all exterior air conditioning vents should be covered during application and air handling equipment should be turned off during application to avoid solvent odors within the building. 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. 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 product, it is advisable to obtain a copy of the MSDS, #PS107, from your distributor or by contacting Vexcon Chemicals.

### PERFORMANCE DATA

Water absorption after soaking in 15% sodium chloride solution:

	<u>WT/GAIN %</u>		
<b>CERTI-VEX GUARD CACS</b> 1 coat @ 125 sq.ft. /gal			
Average of 5 blocks:	1.09%		
Commercial Available Siloxane			
1 coat @ 125 sq.ft. /gal			
Average of 5 blocks:	.95%		
Control Uncoated average of 5 blocks	8.2%		
		<u>Minimum Req.</u>	
		"A"	"B"
% Reduction in water absorption:	75%	86.7%	88.4
Reported in literature:			80%
% Reduction of Chloride Ion Content:	75%	85.7%	70.3%
Reported in literature:			78%
Water vapor transmission:		100%	104%
	116%		
Reported in literature:			118%

A=CERTI-VEX GUARD CACS  
B=COMM. SILOXANE

\*\* Based on preliminary testing work, call 215-332-7709 to receive updated testing.

### CHEMICAL RESISTANCE

Resistant to most common acids, salts and alkali. See CERTI-VEX GUARD CACS Chemical Resistant Chart, data sheet # S107A.

### CONTACT US @

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

- [www.vexcon.com](http://www.vexcon.com)
- [TechnicalService@vexcon.com](mailto:TechnicalService@vexcon.com)
- [CustomerService@vexcon.com](mailto:CustomerService@vexcon.com)
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