



# ChemMasters®

## Certi-Vex® Penseal 244 CT

Low-VOC, Penetrating Water Repellent Silane Sealer with Corrosion Inhibiting Additive for Steel Reinforced Concrete

**SPECIALTY CONSTRUCTION PRODUCTS**

### P R O D U C T                      D A T A

#### DESCRIPTION

**CERTI-VEX PENSEAL 244 CT** is a low-VOC, clear penetrating surface applied water repellent silane sealer and corrosion preventative treatment for new concrete or as part of a corrosion repair system to existing concrete. The product penetrates concrete and provides an organo-functional molecule to inhibit the electro-chemical interaction between rebar and chloride ions, oxygen and moisture within concrete.

Easy to apply, **Certi-Vex Penseal 244 CT** penetrates the concrete and chemically bonds with steel, cement paste and other siliceous materials present. Because corrosion is stopped before it happens, **Certi-Vex Penseal 244 CT** provides a cost effective long term solution to costly repairs of reinforced concrete structures. **Certi-Vex Penseal 244 CT** will also reduce the rate of corrosion on concrete with evidence of existing on going corrosion.

#### USES

- Horizontal or vertical, exterior concrete
- DOT, commercial, industrial & municipal applications
- All types of reinforced concrete structures
- Bridge and parking decks, beams, columns, precast, prestressed & marine structures, facades & balconies

#### ADVANTAGES

- Inhibits corrosion of steel reinforced concrete
- Long term protection against salt corrosion, deicing chemicals, mildew, water, wind driven rain, airborne contaminants, surface spalling from freeze/thaw cycles and other extreme weather conditions
- Reduces corrosion in carbonated concrete
- Extends the life of concrete & reduces repair costs
- Will not discolor/change surface appearance or texture
- Breathable and will not entrap moisture
- Apply in temperatures down to 20° F (-7° C)

Packaging and Part Number		
5 US gallon pail (18.9 L)	36 / pallet	FV3320.05CI
55 US gallon drum (208 L)	4/pallet	FV3320.55CI

#### TECHNICAL DATA

Exceeds National VOC Emission Standards for Architectural Coatings 40 CFR Part 59 < 250 g/L and where VOC regulated levels are required.

- CSI Reference: [03 01 20], [07 19 16]

FHWA-RD-98-153 Cracked Beam Concrete Test:	
ASTM G109 Corrosion Reduction	>99%
• 15 mil cracked concrete, no preexisting corrosion	>99% reduction (3 coats @ 225 ft <sup>2</sup> /gal)
ASTM C876 Corrosion Activity: Micro Cell Reduced	>99% @ 80% RH and 100°F
ASTM C1152 Chloride Ion Reduction - 270 days, 250 ppm	>95% @ 1" above top reinforcing bar

Test Data	
ASTM C1202 Electrical Indication of Treated Concrete to Rapidly Resist Chloride Penetration	<ul style="list-style-type: none"> <li>• Before Coating: 1463 coulombs</li> <li>• After Coating: 443 coulombs</li> </ul>
NCHRP 244 Series II Water Weight Gain Reduction	95%
Series II & IV Chloride Reduction	98%
ASTM C672 Scaling Resistance @ 100 freeze/thaw cycles	0 (no scaling)
ASTM C642 Water Absorption	>98% reduction
<ul style="list-style-type: none"> <li>• 24 hr immersion</li> <li>• 48 hr immersion</li> <li>• 24 hr boil</li> <li>• 50 days immersion</li> </ul>	0.33% 0.40% 0.81% 1.43%
ASTM C457 Depth of Penetration	0.150 to 0.26 in. (substrate dependent)
AASHTO T259/260 Chloride Ion Analysis—90 day salt ponding (@250 ft <sup>2</sup> per gallon)	1/16" to 1/2" - 0.63#/cu.yd. avg. 1/2" to 1" - 0.35#/cu.yd. avg.
ASTM D2047 Coefficient of Friction	0.84 average
ASTM E96 Water Vapor Permeability	95%



**ChemMasters®**

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### Physical Properties

Drying Time	1 to 4 hrs
VOC Content	<250 g/L
Solids	~100%
Flash Point	128°F (53°C)

### Estimating Guide

Most applications will require 2-3 coats, depending on extent of existing corrosion, chloride ion level, and substrate surface texture and porosity.

Surface	ft <sup>2</sup> / gal (m <sup>2</sup> /L)
Bridge & Parking Decks, Ramps, Precast & Prestressed Concrete	175 to 225 (4.3 to 5.5)

### Storage

Store tightly sealed containers in a cool dry area away from direct sunlight and sources of heat or ignition. Shelf life is one year from date of manufacture.

### LIMITATIONS

- Do not apply unless substrate and ambient temperatures are 20°F (-6°C) and rising at time of installation.
- Do not apply above 90°F (32°C) or below 20°F (-6°C).
- Do not apply in rain or when rain is expected within 4 hours before or after application.
- Protect plant life and landscaping from overspray.
- Line stripping can be done after application of sealer. Contact ChemMasters Technical Service for additional information
- **CERTI-VEX PENSEAL 244 CT** may remove special coatings from glass. Test small areas prior to application.
- **CERTI-VEX PENSEAL 244 CT** may “frost” or damage plastic window panes.
- It is the responsibility of contractor/applicator to determine when the substrate is dry enough to safely open to traffic.
- **CERTI-VEX PENSEAL 244 1CT** is a penetrating water repellent designed to reduce the intrusion of water and salts. It is not a waterproofing membrane and thus cannot be expected to bridge cracks or joints.
- **All label precautions and the SDS must be fully understood before using this product.** Ensure that you are using the most recent technical data sheet for instructions. Go to [www.chemmasters.net](http://www.chemmasters.net) for the most up to date information or contact ChemMasters at 800.486.7866 to verify.
- Proper application is the responsibility of the user. ChemMasters can only make technical recommendations and cannot provide quality control on the jobsite.

### DIRECTIONS

May be applied at 14 to 28 days after concrete installation based on mix design, rate of cure and environmental conditions.

All caulking, patching and water base joint sealants should be installed and fully cured prior to application. Hot poured and solvent based joint sealants may be applied before or after application of the sealer.

All surfaces to be sealed must be properly cleaned. As needed, power wash surface clean of dust and construction dirt, surface materials, previous coatings, atmospheric stains and other contaminants.

Surfaces to be treated may be damp but should be absorbent to assure good penetration. Extremely dense surfaces such as burnished trowel finished floors may be given a light acid wash to promote adequate penetration.

**Mixing:** **CERTI-VEX PENSEAL 244 CT** is packaged ready to use. Do not dilute.

**Application:** Apply **CERTI-VEX PENSEAL 244 CT** with a low pressure, solvent resistant, airless sprayer generating 15 psi and equipped with a fan nozzle with 0.025” to 0.030” orifice at 0.5 g.p.m. or use a roller. Follow recommended application rates listed above.

On vertical surfaces, allow 6 inch minimum run down. Maximum run down is 12 inches. Excessive run down or over application can cause discoloration of the substrate.

Horizontal surfaces may be opened to traffic as soon as substrate is dry usually 1 hour at 72°F/22°C with 50% R.H

### Cleanup

Clean tools and equipment used to apply **CERTI-VEX PENSEAL 244 CT** with **ChemMasters Coating Repair**, xylene or mineral spirits before material dries.

### PRECAUTIONS

**For outdoors only. Not for indoor use.**

**WARNING:** Combustible Liquid. May be harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.

**Precautionary Statements:** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

**For professional use only.**

**Keep out of reach of children.**

**See the safety data sheet for hazard information.**

### This Product is Formulated and Labeled for Industrial and Commercial Use Only

FOR BEST RESULTS AND SAFEST USAGE, USER IS SPECIFICALLY DIRECTED TO CONSULT THE CURRENT MATERIAL SAFETY DATA SHEET AND PACKAGE LABEL FOR THIS PRODUCT

We warrant our products to meet our published specifications and to be free from defects in materials and workmanship to the acceptable quality levels defined in these specifications. If acceptable quality levels are not specified, the acceptable quality levels will be those normally supplied by us for the product. We make no guarantee of the results to be obtained from the use of our products. The determination as to the adaptability of any of our products to the specific needs of the Buyer is solely Buyer's prerogative and responsibility. We are glad to offer suggestions on the use of our products. Nevertheless, there are no warranties given except such expresses warranties offered in connection with the sale of a particular product. Our liability shall be limited to replacement of, or refund of an amount not to exceed the purchase price attributed to, the goods as to which such claim is made. Our selection of one of these alternatives shall be Buyer's exclusive remedy. IN NO CASE SHALL WE BE LIABLE FOR CONSEQUENTIAL OR SPECIAL DAMAGES, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, GUARANTEES, CO-CONDITIONS AND REPRESENTATIONS, EITHER EXPRESSED OR IMPLIED, WHETHER ARISING UNDER ANY STATUTE, COMMON LAW, USAGE OR TRADE, COURSE OF DEALING OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.