



VEXCON
CHEMICALS, INC.

Concrete solutions for architects, engineers and builders since 1974
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CERTI-VEX[®] PENSEAL 244 FD

NCHRP-244 • WATER REPELLENT • FAST DRY

DESCRIPTION

CERTI-VEX PENSEAL 244 FD is a high performance, breathable fast drying clear silane water repellent penetrating sealer. The product is ideal for cool weather applications and where dry time is critical for fast return to service. When properly applied the treatment does not produce a surface build up, darkening or other effect on the natural color or texture of the surface leaving a natural appearance. The material's small molecular structure allows for maximum penetration into new concrete (14 days) or existing concrete and masonry surfaces.

Certi-Vex Penseal 244 FD stops the intrusion of water, salts, deicer chemicals, and acids, which often result in efflorescence, mildew growth, corrosion, scaling, spalling, surface erosion, and other costly damage to hard surfaces.

Certi-Vex Penseal 244 FD penetrates into the pores and capillaries of the cement based materials reacting with the moisture and chemicals in the substrate, polymerizing and sealing the pores, which prevents water and chloride ION penetration. Treatment of reinforced concrete reduces surface erosion and corrosion of rebar caused by attack of water and water borne salts and alkalis.

BENEFITS

- Fast drying - Quick return to service
- Ideal for cool weather applications
- Extends the life of concrete and masonry
- Best 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
- Contains alkyl silane groups especially suitable for alkaline concrete surfaces
- Prolongs the surface life and prevents damage from within by maintaining vapor permeability
- Can be applied to surfaces which are slightly damp
- Can apply to 20°F (-6°C)
- Does not alter natural surface texture or appearance
- Deep penetration
- No masking of windows necessary
- Keeps substrate cleaner

RECOMMENDED FOR

Engineered for; bridges, roadways, platforms and other structures where quick return to service is required.

SHORT SPECIFICATON

07 19 16: Low VOC water repellent. VOC content less than 400 grams /liter. Meets or exceeds NCHRP 244 Series IV test, reducing water and salt penetration by 90%. Ten year warranty. Manufactured by Vexcon Chemicals.

PRE-INSTALLATION NOTES

- A test application should be performed on each surface to be treated to ensure compatibility and desired water repellency. Test areas are also useful in determining final application rate and application procedures.
- Following instructions below tests should be applied using the same equipment and techniques planned for job application.
- If a tacky residue remains after 24 hrs, the application rate must be modified. Material which remains tacky on the surface can usually be removed by washing with water or a vinegar solution.

SURFACE PREPARATION

- All caulking, patching and water base joint sealants should be installed and fully cured prior to application. Hot poured and solvent based joint sealants maybe applied before or after application of the sealer. Concrete should be properly cured, see Curing
- All surfaces to be sealed must be properly cleaned. As needed, power wash surface clean of dust and construction dirt. Use **Vexcon's New Construction & Restoration Cleaners** to clean surface materials, previous coatings, atmospheric stains and other harder to clean contaminants.
- Surfaces to be treated may be damp but should be absorbent to assure good penetration.
- To determine that the concrete is absorbent perform a water absorbency test by applying water to a representative portion of the prepared surface. A properly prepared surface when dry will immediately absorb clean water without any surface beading effects.
- To improve absorbency, perform a mild chemical etch using **Certi-Vex Etch and Efflorescence Remover & StarSeal Neutralizing Rinse** or by mechanical means (shot, sand blasting or high power wash)

CURING RECOMMENDATIONS

- Concrete can be cured with **Certi-Vex Envio Cure**, an emulsion resin cure, which will dissipate. Allow to dissipate or remove with **Certi-Vex Concrete Stripper**.
- Water cure-burlap

APPLICATION

- Do not dilute
- Application to still damp surfaces is acceptable however free standing water must be removed.
- Apply with low-pressure (20-PSI) airless industrial spray equipment. Sprayer should be fitted with solvent resistant hoses and gaskets.
- If using brushes or rollers care should be taken to ensure that enough solution is applied.
- Apply in a single saturating application with sufficient material applied so the surface remains wet for a few minutes before penetration into the surface.
- Surface residues, pools and puddles should be broomed or brushed out until they completely penetrate into the surface.
- Protect from vehicular traffic until the surface is dry.

SPECIFICATIONS/COMPLIANCE

- VOC - <250 grams/liter or <2.08 #/gal
Meets:
 - USEPA AIM - Waterproofing Sealers and Treatments
 - OTC - Waterproofing Sealer
 - LADCO/MRPO - Waterproofing Sealers
 - CEPA/EC - Waterproofing Sealers
- Chloride screen test using NCHRP 244 series IV (1 application at 125 sq.ft. /gal.) greater than 90%
- Reduces water absorption (ASTM C-67 and ASTM C-140) by greater than 84%
- Scale rating-ASTM C-672-84 100 freeze thaw cycles-0 (no scaling)
- Penetration (1 application) 7mm-13mm. depending on substrate
- CSI reference: 07 19 16

PHYSICAL PROPERTIES

- Color Clear
 - Dry time Vehicle traffic 30 minutes
 - Total active silane (by wt.) >40%
- Dry times are based upon 68-77°F (20-25°C) at 50% RH. Lower temperatures and the relative humidity will extend dry times.

HEALTH AND SAFETY

CAUTION FLAMMABLE LIQUID

- 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 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.

PACKAGING

Available in 55-gallon drums and 5-gallon pails. Contact Vexcon directly to discuss your customized packaging requirements

SPECIAL NOTES

- The product should be stored in sealed containers and kept away from extreme heat.
- Do not apply unless substrate and ambient temperatures are 20°F (-6°C) and rising at installation time.
- 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 after application.
- Do not apply water repellent treatment on windy days.
- Protect plant life and landscaping from overspray.
- Line stripping can be done after application of sealer. Contact Vexcon Technical Service for additional information
- Inadvertent overspray should be immediately rinsed with water. If allowed to dry, clean with **Certi-Vex Equipment Cleaner**. Protect non-porous surfaces. Protect from spillage or overspray, specialty coated glass, plastic windows, bituminous roofing products and asphalt. Check compatibility before application.
- It is the responsibility of contractor/applicator to determine when the substrate is dry enough to safely open to traffic.
- Shelf Life: If properly stored in its original sealed container, 3 years from date of manufacture. Rotate your stock.
- For use by experienced contractors.
- Storage/ Handling: Store in tightly sealed original factory container. Keep from freezing and exposure to moisture. Store at room temperature prior to use. Care should be taken to keep dirt, water and contaminants away from the opening of containers.
- Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- 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.

COVERAGE RATES/ESTIMATING

The following is a guide for estimating material requirements. Actual coverage rates can vary based on substrate or transportation authority requirements.

- **Horizontal**

Porous Concrete	125 - 140 sq.ft./gal.(3.1-3.5m ² /L)
Smooth Hard Troweled Concrete	200 - 400 sq.ft./gal. (6.5-11m ² /L)
Bridge Decks/Ramps	200 - 300 sq.ft./gal. (3.1 – 8.1 m ² /L)
Resealing Bridge Decks/Ramps	250 - 300 sq.ft./gal. (8.1 – 9.2 m ² /L)
Concrete Pavers	120- 140 sq.ft./gal. (3.1-3.5m ² /L)
Brick	200 - 250 sq.ft./gal. (6.5m ² /L)
- **Vertical**

CIP or Precast Concrete	150 - 200 sq.ft./gal (3.5-5m ² /L)
Un-Painted Stucco	95 - 140 sq. f t./gal (2.4-3.5m ² /L)
Brick	200 - 400 sq.ft./gal. (6.5-11m ² /L)
Smooth Faced Block	200 - 400 sq.ft./gal. (6.5-11m ² /L)

CONTACT US @

Additional product information, technical assistance and customer service is 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 sixty (60) 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. 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 OF NEGLIGENCE, GROSS NEGLIGENCE, MISUSE, 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 collateral to or affecting any sale or use. All of the foregoing arises under the substantive law of Pennsylvania without regard to principles of conflicts of laws.

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