



VEXCON
CHEMICALS, INC.

Concrete solutions for architects, engineers and builders since 1974
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STARSEAL[®] VERTICAL STAIN

VERTICAL COLORED COATING • STAIN PROTECTION • ECONOMICAL

DESCRIPTION

STARSEAL VERTICAL STAIN is a ready-to-use advanced acrylic copolymer water-based penetrating coating which provides economical weatherproofing from the elements for fresh or existing concrete, masonry, block and stucco while enhancing the architectural features of the structure.

This colored curing and sealing compound quickly forms a uniform decorative, hard, dustproof, water repellent, chemical and stain resistant protective barrier which seals, enhances and revitalizes the appearance of new or existing vertical architectural concrete and masonry. This product provides good protection from moisture, salts, staining and other harmful elements.

StarSeal Vertical Stain features Vexcon's breathable technology which allows moisture vapor to pass through rather than becoming trapped, preventing whitening, peeling and flaking.

BENEFITS

- Good protection from moisture, salts, staining and other harmful elements
- Available in 50 standard and custom colors. See Vexcon Color Systems brochure
- Provides for complete development of concrete's wear resistance and strength properties
- Low odor
- Seals and hardens surface, reducing clean-up and maintenance costs
- Prevents efflorescence, dusting and spalling
- Safe to use
- Easy to apply
- Resistant to yellowing and color fading
- Enhances and revitalizes old, stained or uncolored surfaces
- Apply to damp surfaces without loss of adhesion
- Corrects color variations

RECOMMENDED FOR

Commercial, industrial, institutional and residential structures where economical, good weatherproofing, and a decorative architectural finish desired.

- Concrete, block, brick, or stucco
- Sound walls
- Highway bridge structures
- Median barriers
- Retaining walls

SURFACE PREPARATION

Vertical surfaces should be cleaned using **StarSeal EF Degreaser and Cleaner**. Existing coatings should be removed using **StarSeal EF Stripper V**. Remove efflorescence using **StarSeal Safe Etch** and neutralize with **StarSeal EF Neutralizing Rinse & Cleaner**. On old or existing masonry or concrete surface 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 vertical repair mortars.

APPLICATION

- Product is supplied at the proper consistency for application and dilution will reduce efficiency.
- Thoroughly mechanically mix before applying; a multi-vane "squirrel cage" mixing drill attachment is recommended.
- 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 absorb and cover the surface.
- Succeeding passes must lap the previous run-down. Do not over-apply.
- Do not allow excess product to build on surface. See Coverage Rates / Estimating section.
- If applying by roller, do not over-work material. Do not back roll or allow the working area to dry; coat in one direction only.
- When roller applying, roller should be dampened with water prior to use. Keep roller wet with material. Do not allow roller to dry.
- When spray applied, particular care must be taken with spray overlap area. Proper technique for spraying calls for a pattern which prevents excessive run down of material.
- The sealer can be applied to damp or new surfaces, as long as there are no slick water surface spots visible.
- A uniform appearance requires even coats leaving no gaps. Some areas may be more porous than others; these areas may require additional coats to even out the appearance. Caution: Do not over-apply material. See Special Notes section.
- Apply first coat according to coverage chart below. A second coat is recommended for long term durability and to even out color. For best coverage, apply the second coat perpendicular/90° to the first coat.

EQUIPMENT

Apply by low-pressure high solids commercial grade solvent resistant sprayer. The sprayer must be clean and dry. If cleaning with solvents is required, use **Certi-Vex Equipment Cleaner** and flush thoroughly with water before use. Clean sprayer as directed between applications to ensure best results. If sprayer is not available, use a ¼" nap mohair-type solvent-resistant, lint-free roller, or a brush.

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.

	First Coat	Second Coat
Vertical Concrete	250-300 sq.ft./gal. (6.1 – 7.4 m2/L)	400-500 sq.ft./gal. (9.8 – 12.2 m2/L)
CIP or Pre-Cast	160-200 sq.ft./gal. (3.9 – 4.9 m2/L)	160-200 sq.ft./gal. (3.9 – 4.9 m2/L)
Brick	300-400 sq.ft./gal. (7.4 – 9.8 m2/L)	400-600 sq.ft./gal. (9.8 – 14.7 m2/L)
CMU block Smooth-faced	130-150 sq.ft./gal. (3.2 – 3.6 m2/L)	130-150 sq.ft./gal. (3.2 – 3.6 m2/L)
CMU block Split-faced	50-100 sq.ft./gal. (1.2 – 2.4 m2/L)	100 - 150 sq.ft./gal. (2.4 – 3.6 m2/L)
Stucco	60-100 sq.ft./gal. (1.4 – 2.4 m2/L)	100 - 150 sq.ft./gal. (2.4 – 3.6 m2/L)
Curing Fresh Concrete	300 sq.ft./gal. (7.4 m2/L)	400-500 sq.ft./gal. (9.8 – 12.2 m2/L)

SPECIAL NOTES

- To assist in application, please note: 200 sq.ft./gal wet film is approximately equal to the thickness of a sheet of paper
- For vertical application only – Use **StarSeal 1315 Concrete Stain** for horizontal surfaces.
- Will cause bleeding of bituminous surfaces
- Mechanically mix well before each use.
- Do not apply more material per sq.ft. than specified.
- Keep from freezing.
- Application of more than two coats is not recommended.
- Over application may lead to surface discoloration and improper sealer performance.
- Can apply when surface temperatures are 40°F - 85°F (4°C - 29°C); when below or above these ranges, review Vexcon's **Cold and Hot Weather Application Guides**.
- Protect areas from over-spray.
- Do not apply if rainfall is imminent or on frosted or frozen surfaces.
- Do not apply on windy days.
- Shelf Life: If properly stored in its original sealed container, two years from date of manufacture. Rotate your stock.
- For use by experienced applicators
- 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.

SHORT SPECIFICATION

[03 39 00] [07 19 13] [09 93 13] [09 97 23]: Basis of design: VOC compliant, water based colored 33% solids (minimum) acrylic [Concrete Curing] [Acrylic Water Repellent][Exterior Staining and Finishing][Concrete and Masonry Coating] stain resistant, non yellowing and non-fading conforming to ASTM C309 Type II Class A & B and ASTM C1315 Type II, Class B. Manufactured by Vexcon Chemicals.

SPECIFICATIONS/COMPLIANCE

VOC – <250 grams/liter or <2.09#/gal.

- Meets:
 - US EPA AIM - Concrete Curing and Sealing Compounds
 - OTC - Waterproofing Concrete/Masonry Sealers
 - LADCO - Waterproofing Concrete/Masonry Sealers
 - Canada - Waterproofing Sealers, Concrete/Masonry
 - CARB - Waterproofing Sealers, Concrete/Masonry
- LEED NC category/points: For detailed information visit vexcon.com/green.
 - EQ 4.2 – 1 point
 - MR 2.1/2.2 – 1 point
 - MR 5.1/5.2 – 1 point
- ASTM C309, Type II, Class A&B
- ASTM C1315, Type II, Class B
- USDA approved
- CSI reference: 03 39 00, 07 19 13, 09 93 13, 09 97 23

MAINTENANCE

Spills should be removed promptly and cleaned. Sealed areas should be cleaned regularly, use StarSeal EF Degreaser & Cleaner for all cleaning requirements. Periodic reapplication may be required as the sealer wears off.

PHYSICAL PROPERTIES

- Color 50 standard colors
- Dry - tack free 45 minutes
- Solids 33% minimum

PACKAGING

StarSeal Vertical Stain is available in 55-gallon drums, and 5-gallon pails. Contact Vexcon directly to discuss your customized packaging requirements.

HEALTH AND SAFETY

- Use only with adequate ventilation.
 - Use of 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.
- Vexcon MSDS CS111 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 product, obtain a copy of the MSDS from your distributor or by contacting Vexcon Chemicals.

CONTACT US @

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

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