



BASIC USE

The product is ideal for both interior and exterior applications on new and existing concrete floors, stucco or brick walls, architectural sections, and vertical poured walls.

StarSeal EF products provide protection from the damaging affects of water penetration and staining and are resistant to ultra violet light. StarSeal EF products also will enhance the color and impart an attractive vibrant shine to colored and natural concrete surfaces.

All StarSeal EF products feature Vexcon's breathable technology which allows moisture vapor to pass through rather than becoming trapped, preventing whitening, peeling and flaking.



1. Product Name

StarSeal EF Low Gloss, Medium Gloss, High Gloss

2. Manufacturer

Vexcon Chemicals
7240 State road
Philadelphia, PA 19135
(215) 332-7709
www.vexcon.com

3. Product Description

StarSeal EF products are high performance building materials that are dedicated to reducing their environmental foot print by improving the environmental performance of buildings, the air quality of its inhabitant's and reducing the effects of volatile organic compounds (VOC's) on the environment.

StarSeal EF products can contribute points towards Leadership in Energy and Environmental Design (LEED) Green Building Rating System credits for certified projects in environmentally responsible new construction and building rehabilitation projects. Eco-Friendly attributes.

- Low odor
- Low VOC content
- LEED Points
- Safe to use
- Safe to store
- Packaged in recyclable containers

StarSeal EF Series are ready to use acrylic water based, membrane forming curing, sealing, hardening and dust proofing compounds for new and existing concrete surfaces. StarSeal EF products leave a clear hard protective gloss finish coating and is an excellent cure material for long term concrete performance.

BENEFITS

- Provides for complete development of concrete's wear resistance and strength properties
- Apply to damp surfaces without whitening or loss of adhesion
- Seals and hardens surface, reducing clean-up and maintenance
- Protection against staining, attack by alkali, oil, cleaners, water penetration and common industrial chemicals
- Prevents efflorescence, dusting and spalling
- Vexcon breathable technology
- Cost effective
- Long lasting

PACKAGING

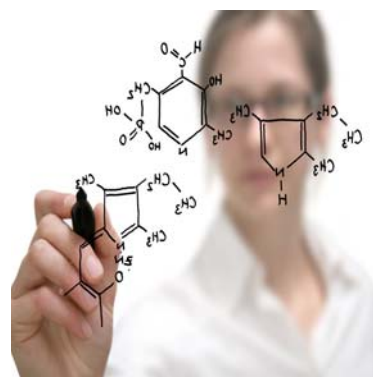
Available in 55-gallon drums, 5-gallon pails and 1 gallon containers. Our packaging is recyclable type 2 high density polyethylene (HDPE).

YIELD

Low Gloss: Apply first coat at 200 sq.ft/gal (5 m²/L). Apply 2nd after 1st coat has dried at 400-500 sq.ft./gal (10-12.5 m²/L).

Medium Gloss: Apply first coat at 300 sq.ft/gal (7.5 m²/L). Apply after 1st coat has dried at 400-500 sq.ft./gal (10-12.5 m²/L).

High Gloss: Apply first coat at 300-sq.ft/gal (7.5 m²/L). Apply after 1st coat has dried at 400-500 sq.ft./gal (10-12 m²/L).



SHELF LIFE

If properly stored in its original sealed container, two years from date of manufacture.

ACCESSORIES

If applying by sprayer:

- Low-pressure commercial grade solvent resistant sprayer with neoprene fittings. (Do not use garden or form oil sprayers).

If applying by roller:

- EvenFlow Applicator or ¼ " nap mohair roller.
- StarSeal EF Stripper
- StarSeal EF Degreaser & Cleaner
- StarSeal EF Safe Etch
- Certi-Vex Equipment Cleaner
- Vexcon specialty cleaning and surface preparation products

LIMITATIONS

- Will tend to show rubber burns or tire marks
- Will cause bleeding of bituminous surfaces
- May enhance mottling of colored surfaces
- Not gasoline resistant use StarSeal EF® Epoxy products
- Application of more than two coats is not recommended
- Over application may lead to surface discoloration and improper sealer performance
- For use by experienced applicators
- Manufacturer's Qualifications: Specialize in manufacture of curing and sealing materials with a minimum of 10 years successful experience.
- Applicator shall have prior experience applying curing and sealing

4. Technical Data

APPLICABLE STANDARDS

- American Society for Testing Materials – ASTM
- American Concrete Institute – ACI
- United State Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED)
- United States Department of Agriculture
- United States Environmental Protection Agency -EPA

APPROVALS

- VOC - All grades < 56gr/liter or 0.47 #/gal. per EPA method 24
 - USEPA AIM-Concrete Curing and Sealing Compounds
 - OTC-Waterproofing Concrete/Masonry Sealers
 - CARB- Waterproofing Sealers, Concrete/Masonry
 - SQACMD - Waterproofing Sealers, Concrete/Masonry
- American Society of Testing Materials – ASTM
 - ASTM C 309 Standard Specification for Membrane Forming Curing Compound
 - ASTM D 2047 Standard Test Method for Static Coefficient of Friction of Coated Flooring Surface as Measured by the James Machine.
 - ASTM D 2369 Standard Test Method for Volatile Content of Coatings
- American Concrete Institute – ACI
 - ACI 308 Standard Practices for Curing Concrete
 - ACI 302.1 Guide for Concrete Floor and Slab Construction
- United State Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED)
 - New Construction and Major Renovations 2.2v.
- United States Department of Agriculture
- United States Environmental Protection Agency -EPA
 - Method 24 - Determination of Volatile Matter Content of Surface Coatings.

PHYSICAL/CHEMICAL PROPERTIES

Wet appearance	Milky White
Dry appearance	Clear
Dry - tack free	25 minutes
Foot traffic	24 hours
Vehicle traffic	72 hours
Solids	15-30%

Note: All calculations based upon 68-77°F (20-25°C). Lower temperatures and relative humidity will extend dry times.



ENVIRONMENTAL CONSIDERATIONS

- Do not apply curing and sealing compound when surface temperatures are below 40°F
- Do not apply curing and sealing compound when surface temperatures are above 85°F
- Do not apply curing and sealing compound on windy days
- Keep from freezing
- Mix well before each use
- Do not apply curing and sealing compound in direct sunlight



5. Installation

SURFACE PREPARATION

The concrete surface must be properly repaired, structurally sound and cleaned. Use Vexcon's surface prep and cleaning products to properly clean the surface prior to application.

- To remove coatings such as epoxy's, sealers and curing compounds use StarSeal EF Concrete Stripper.
- The concrete should be cleaned with StarSeal EF Degreaser & Cleaner to remove any dust, dirt or debris and allowed to dry for a minimum of 24 hours after cleaning.
- To remove efflorescence or to etch the surface for improved material penetration, use StarSeal EF Safe Etch.
- There should be no freestanding water.
- Large cracks should be repaired using Powercoat Epoxy Joint Sealant.

METHODS

EXISTING FLOORS

- Prior to application a test area must be performed to determine proper application rate and required surface preparation.
- 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 StarSeal EF Safe Etch to improve sealer penetration. Application to still damp surfaces is acceptable however free standing water must be removed.

NEW FLOOR

- Apply StarSeal EF to still damp freshly finished concrete as soon as the surface cannot be marred, and water sheen disappears. Do not apply over free-standing water.
- If application is delayed, concrete must be kept wet (preferably by water spray mist) until product can be applied.
- If concrete is allowed to dry use StarSeal EF Safe Etch to clean and prepare the surface.

PRECAUTIONS

- Will tend to show rubber burns or tire marks
- Will cause bleeding of bituminous surfaces
- May enhance mottling of colored surfaces
- Not gasoline resistant use StarSeal EF Epoxy products
- Application of more than two coats is not recommended
- Over application may lead to surface discoloration and improper sealer performance
- Mix well before each use.
- Keep from freezing
- Do not apply more material per square foot than specified.

6. Availability & Cost

AVAILABILITY

Vexcon products are available nationwide. Contact Vexcon for a distributor in your area.

7. Warranty

Complete warranty terms and conditions are available from the manufacturer. For details, contact Vexcon Chemicals.

8. 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.

9. Technical Service

Technical assistance, including more detailed product information, product literature, MSDS, test results and project lists are available. Call 1-888 VEXCON-1, or visit www.vexcon.com

10. Filing Systems

- Product data sheet, 3-part specification, MSDS, test reports and additional product information is available at www.vexcon.com or by contacting Vexcon directly.
- Product code number: EFCS200, EFCS205, EFCS210

