

SECTION [09 97 00]
[Special Coatings]

Specifier Note: This product guide specification is written according to the Construction Specifications Institute (CSI) 3-part format. The section must be carefully reviewed and edited by the Architect or Engineer to meet the requirements of the project and local building codes. Coordinate this section with other specification sections and the drawings. Delete all “Specifier Notes” when editing this section.

Specifier Note: This section covers StarSeal EF Super Coat HBV (High Build Vertical) is a 100% high performing water borne acrylic waterproof coating. Recommended for concrete and masonry surfaces such as stucco, concrete block, pre-cast, poured in place and tilt up concrete.

StarSeal EF Super Coat HBV provides an attractive, breathable, protective coating that enhances the aesthetic appearance of vertical concrete and masonry surfaces. StarSeal EF Super Coat HBV provides excellent adhesion, weathering and waterproofing protection. The products one coat application saves time and money over typical two and three coat systems.

Specifier Note: 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.

Specifier Note: This guide specification is provided as a start point for the design professional. Any modifications to the specification are the responsibility of the design professional. Contact Vexcon Chemicals with any questions regarding this product.

PART 1 – GENERAL

1.1 SUMMARY

- A. This section specifies StarSeal EF Super Coat HBV [smooth] [textured] a 100% high performing water borne acrylic waterproof coating for vertical concrete and masonry surfaces.

Specifier Note: Edit the list of related sections as required for the project. List other sections dealing with the work directly related to this section.

1.2 RELATED SECTIONS

- A. 03 30 00 - Cast In Place Concrete
- B. 03 400 0 - Pre-Cast Concrete
- C. 04 22 00 - Concrete Unit Masonry
- D. 04 21 00 - Clay Unit Masonry
- E. 09 97 23 – Concrete and Masonry Coatings

1.3 REFERENCES

A. Federal Specification

- 1. TTC-555 B
- 2. TTP-1411

B. United State Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED)

- 1. New Construction and Major Renovations v2.2.

C. United States Environmental Protection Agency (EPA)

- 1. Method 24 - Determination of Volatile Matter Content of Surface Coatings

D. American Society for Testing Materials - ASTM

- 1. ASTM D 2369 Standard Test Method for Volatile Content of Coatings
- 2. ASTM C 309 Standard Specification for Membrane Forming Curing Compound

1.4 SUBMITTALS

A. Comply with section 01 33 00 – Submittal Procedures

B. Comply with section 01 31 00 – Project Management and Coordination/LEED Submittals

- 1. Obtain written certification from manufacturer on manufacturer's letterhead for all field applied sealants and coatings indicating compliance with LEED NC 2.2 EQ

4.1/4.2 Low Emitting Materials

- a. The Volatile Organic Compound (VOC) content in grams/liter or lbs./gallon. per EPA method 24, compliance with South Coast Air Quality District (SCAQD) rule # 1113 dated June 2008, the environment label and the declaration requirements of ISO 14020 and ACT 15 of the Federal Trade Commission guide on use of environmental marketing claims.

- 2. Provide documentation from manufacturer to validate compliance with LEED NC 2.2 MR 5.1/5.2 Regional Materials

3. Provide documentation from manufacturer indicating contribution towards LEED NC 2.2 MR 2.1/2.2 Construction Waste Management.

C. Manufactures product data sheet: Include manufacturer's specifications, surface preparation, special notes and application instructions.

D. Manufactures material safety data sheet

E. Test Data: Confirm compliance with specified requirements from independent testing laboratory.

F. Samples: Submit 8" x 10" drawdown samples for each color and texture selected. Samples shall be made of coating specified and color matched as selected by the architect/owner.

G. Applicators Quality Assurance: Submit list of minimum of 5 completed comparable projects applying high build vertical coatings. Include for each project:

1. Project name and location
2. Name of contractor, architect and coating manufacturer
3. Approximate size of project and quantity epoxy coatings applied
4. Date of completion

G. Comply with section 01 77 00 – Closeout Procedures

1.5 QUALITY ASSURANCE

A. Manufacturer's Qualifications: Specialize in manufacture of high build vertical coatings with a minimum of 10 years successful experience.

B. Installation Qualifications: Firm certified in writing by manufacturer as an approved applicator.

C. Regulatory Requirements: Products shall comply with federal, state and local VOC regulations.

D. Product shall contribute to LEED NC 2.2 points.

E. Source Limitations: Obtain block fillers and other materials from the same manufacturer as the high build vertical coating.

F. Mock-Up:

1. Provide a 10' x 10' sample for each material, color and texture, to be applied to each substrate to receive vertical high build coating using same application equipment and methods as finished job.

2. Mock-up should be applied at the job site on the same surface to be coated as selected by the architect/owner/general contractor.
3. Obtain written approval from architect/owner prior to proceeding.
4. Leave mock-up in place as part of completed project.

1.6 DELIVERY, STORAGE AND HANDLING

A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.

B. Storage: Store materials in clean, dry area in accordance with manufacturer's instructions. Keep containers sealed until ready for use.

C. Handling: Protect materials during handling and application to prevent damage or contamination.

D. Do not use materials beyond manufacturer's shelf life limits

1.7 PROJECT CONDITIONS

A. Environmental Requirements

1. Do not apply high build vertical coating when ambient temperatures are below 45°F
2. Do not apply high build vertical coating when ambient temperatures are above 90°F
3. Do not apply high build vertical coating on windy days
4. Keep from freezing
5. Mechanically mix well before each use
6. Coating when adverse weather conditions are expected within 12 to 24 hours of application should be avoided
7. Do not apply to frozen, frost or snowy surfaces

1.8 WARRANTIES

A. Provide manufacturers 5 year warranty against cracking or peeling and will provide resistance to molds, fungi, and water penetration. Contact manufacturer for sample of warranty terms and conditions.

PART 2 – PRODUCTS

2.1 Acceptable Manufacturer

A. Vexcon Chemicals 7240 State Road Philadelphia PA 19135
Toll Free Technical Assistance 888.Vexcon1, fax 215.332.997, website www.vexcon.com
email sales@vexcon.com.

B. Substitutions: Not permitted

2.2 Acceptable Material

Specifier Note: Contact Vexcon to determine that the surface to be coated is properly prepared and pin hole free.

A. Product: StarSeal EF Super Coat HBV

B. Description: Low VOC concrete and masonry coating

C. Compliances:

1. US EPA Method 24

a. VOC < 75 grams/liter or 0.63 #/gal

2. ASTM D 2369

a. Minimum solids 68%

3. ASTM C 309, Type 2 Class B

4. Meets all state, federal and local VOC clean air regulations including South Coast Air Quality District (SCAQD) rule # 1113 dated June 2008

5. Federal specification TTC-555 B

- a. Flexibility-Pass
- b. Moisture resistance-Pass
- c. Accelerated Weathering-Pass
- d. Wind driven (100 mph) rain-Pass
- e. Breathability, perms 1.5

6. Federal Specification TTP-1411

a. Waterproofing concrete and masonry above and below grade-Pass

7. Mildew Resistant - Coating contains agents which inhibit the growth of mildew.

8. LEED NC 2.2 EQ 4.2

PART 3 – EXECUTION

3.1 EXAMINATION

A. Verify by examination that the concrete and masonry surfaces are acceptable to receive the high build vertical coating. Do not proceed with work until any unsatisfactory conditions have been corrected. Notify architect/general contractor in writing if surfaces are not acceptable to receive the specified product

B. Commencement of installation will be construed as the applicators acceptance of surface conditions.

3.2 PROTECTION

A. Adjoining glass, vegetation, metal and painted surfaces should be protected from over spray and splash. Inadvertent splashes should be removed following manufacturers instructions.

B. Protect completed coated surface from dirt and damage.

3.3 SURFACE PREPARATION

A. Prepare surface in accordance with manufacturer's written instructions for specific surface type to be coated. The use of compatible Vexcon surface prep and specialty cleaning products is recommended were required

B. General guidelines

1. Remove efflorescence, chalk, dust, dirt, curing compounds, coatings, release agents, bond breakers, grease, oils, loose substrates and other surface contaminants. Pressure wash, chemically clean or mechanically abrade as needed to provide a clean, sound surface.

2. Follow manufactures temperature guidelines.

3. Surface shall be free of standing or running water from water sources such as uncompleted roofing, leaking scuppers, landscape spraying and other water sources.

4. Surface may be damp, but not liquid wet.

C. Hot Weather Guidelines

1. Hot weather painting practices should be strictly adhered to; i.e., paint on shady side of building. Paint early mornings and late afternoon, etc. not midday when sun is strongest, pre-dampen and cool surfaces prior to painting. Use thinner coats in hot weather to minimize shrinkage.

D. Cast in Place/Tilt-up Concrete

1. Form release materials and bond breakers must be removed prior to application.
2. All lift holes, tie holes, bug holes, rock pockets, and other voids must be patched prior to application.
3. Curing compounds and other coating materials must be removed.
4. All formed concrete and tilt surfaces that are to be coated must be checked for water beading. The surface should be misted with water. If the water beads rather than penetrate into the surface the surface must be cleaned to remove form oil or bond breaker residue. Chemical cleaning is required. Power wash alone is not sufficient.

E. Concrete Block/Split Face Block

1. All joints shall be caulked and sealed prior to painting.
2. Split face block shall be coated with an application of Enviosmooth Block Fill to insure that the split face block has a uniform surface density for best performance.
3. Regular concrete block should be clean and free of all mortar markings, efflorescence and contaminates.

F. Stucco/EIFS Finishes

1. All stucco and EIFS surfaces shall be free of dust, dirt, rust, contaminates and all joints shall be caulked and sealed.

3.4 MATERIAL PREPARATION

- A. Remove any surface film that may form on the material.
- B. Mechanically mix material before application to produce a uniform mixture. Mix as required during application.
- C. Contact Vexcon before thinning.

3.5 APPLICATION

- A. Apply in accordance with manufactures written application instructions.
- B. Do not apply coating below or above manufactures written recommended coverage rate.
- C. Apply with spray equipment per manufacturers written recommendations.

3.6 FIELD QUALITY CONTROL

A. Inspection: Architect/owner to visually inspect surface. Any defects will be documented and provided to applicator/contractor/general contractor and Vexcon.

1. Applicator/contractor will touch-up, repair and restore any defects in the finished surface until accepted by architect/owner.

2. Applicator/contractor will receive written acceptance of final surface from architect.

3. Applicator/contractor will provide Vexcon with all documentation and application required for warranty.

3.7 CLEANING AND PROTECTION

A. During course of work, remove discard coating materials, rubbish, cans, rags and other discarded materials from the project site.

B. Protect completed coated surface from dirt and damage.

C. After completion of application, clean glass and splattered surfaces.

END OF SECTION