

## **VITRUV SPECIFICATIONS**

### **SECTION 09 24 43 – PORTLAND CEMENT DECORATIVE VENEER**

#### **PART 1 – GENERAL**

##### **1.1 SUMMARY**

- A. This Section includes the following:
  - 1. Durable Decorative Concrete System in a multi-part application incorporating a compatible base and finish coat.

##### **1.2 SUBMITTALS**

- A. Product Data: For each product indicated submit two copies of manufacturer's literature for all products furnished, including appropriate Material Safety Data Sheets (MSDS).
- B. Samples: For each color and textured finish indicated submit two samples of each finish, applied to 1/8" Masonite or similar rigid base, 8" x 11". One sample is to be retained by Architect for quality control and a signed sample is to be returned to contractor.

##### **1.3 QUALITY ASSURANCE**

- A. Source Limitations for Durable Decorative Concrete System Products: Obtain Durable Decorative Concrete System products, including base and finish coating materials, from a single manufacturer.
- B. Fire-Test-Response Characteristics: For Durable Decorative Concrete System assemblies with fire-resistance ratings, provide materials and construction identical to those tested in assembly indicated according to ASTM E 84 by an independent testing and inspecting agency acceptable to authorities having jurisdiction.
- C. Wear Resistance: For Durable Decorative Concrete System assemblies with STC ratings, provide materials and construction identical to those tested in assembly indicated according to ASTM C 501 yielding a Wear Index of 14.5 on a C-17 Wheel; and ASTM D-822 exhibiting no effect after 5000 hours with ultraviolet and water spray; and ASTM B-117 producing no degradation after 2000 hours exposure, all by a qualified independent testing agency.
- D. Crack Bridging Characteristics: For Durable Decorative Concrete System assemblies with STC ratings, provide materials and construction identical to those tested in assembly indicated according to ASTM C-8336 yielding no rupture or loss of bond (EM-100-N) at 1/8 inch; and ASTM C-638 Elongation yielding 600% (EM-100-N), all by a qualified independent testing agency.

##### **1.4 ENVIRONMENTAL CONDITIONS**

- A. All materials, individually or mixed, shall have low or zero volatile organic content (VOC).
- B. Substrate and air temperature must remain above 70°F during and for at least 24 hours after application of materials.

##### **1.5 REFERENCES**

## TYPICAL PERFORMANCE TABLE

ASTM E-96	Water Vapor Transmission	99.7 grams/sq. meter/24 hrs. or 14.3 perms. Tested with the wet cup method.
ASTM C-1202	Chloride Permeability	Traffic Component 92% Chloride screened out.
ASTM C-501	Wear Resistance	Wear index 14.5 C-17 wheel
ASTM C-609	Tensile Strength	460 psi
ASTM C-638	Elongation (Crack Bridging)	600% (EM-100-N)
ASTM C-836	Crack Bridging	1/8" no rupture or loss of bond (EM-100-N)
ASTM D-822	Weathering Resistance	5000 hrs. with ultraviolet & water spray produced no effect.
ASTM B-117	Salt Spray	2000 hrs. exposure produced no degradation.
ASTM E-84	Fire Test	System rated Class A
Environmental	VOC	Low or Zero, non-toxic, odorless

## PART 2 – PRODUCTS

### 2.1 MANUFACTURERS

- A. In other Part 2 articles where subparagraph titles below introduce lists, the following requirements apply for product selection:
1. Available Products: Subject to compliance with requirements, products that may be incorporated into the work include, but are not limited to, the products specified.
  2. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the manufacturers specified.
  3. Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified.

### 2.2 DURABLE DECORATIVE CONCRETE SYSTEM

- A. Three-Component Durable Decorative Concrete System: Separate formulations as provided by the manufacturer: one for base coat, one layering coat and one for finish coat application over substrates indicated.
1. Base Coat: resin copolymer emulsion and Portland cement based factory apportioned catalyst, troweled over a 9 x 9 fiberglass self adhesive matting.
  2. Layering Coat(s): The layering component is a resin copolymer emulsion and a Portland cement based factory apportioned catalyst.
  3. Color and Pattern:  
Pattern: To be selected \_\_\_\_\_  
Color: To be selected -- Custom colored.  
Finish Coat: To be selected \_\_\_\_\_

4. Specified top coat providing additional color or sealing properties
- B. Available Product and Manufacturer:  
Vitrūv manufactured and installed by:  
DFB Sales, Inc., 21-07 Borden Ave., LIC, NY 11101, (718) 729-8310.
- C. Reinforcing Fabric: Self Adhesive 9-by-9 fiberglass, as required.

## **PART 3 -- EXECUTION**

### **3.1 PREPARATION**

- A. Dry Wall Substrates: Level 4: All joints and interior angles shall have tape embedded in joint compound and three separate coats of joint compound applied over all joints, angles, fastener heads, and accessories. All joint compounds shall be smooth and free of tool marks and ridges. Prepared surface must be coated with a white latex primer/sealer prior to the application of final finishes.
- B. Monolithic Concrete Substrates:
  1. Clean surfaces to remove dust, loose particles, grease, oil, incompatible curing compounds, form-release agents, and other foreign matter and deposits that could impair bond with bonding compound and plaster.
  2. Remove ridges and protrusions greater than 1/8 inch (3 mm) and fill all depressions greater than 1/4 inch (6 mm) with Portland cement mortar. Allow to set and dry.
  3. Apply bonding compound on dry and fully cured concrete substrates.
- C. Masonry Substrates: Clean surfaces to remove dirt, grease, oil, and other foreign matter and deposits that could impair bond with plaster.
- D. Other Substrates: provide manufacturers' recommendations for this item and substrate item specifics and submit to Architect for approval and notice to proceed as recommended. Coordinate all recommendations into an installation plan.

### **3.2 DURABLE DECORATIVE CONCRETE SYSTEM APPLICATION**

- A. General: Comply with concrete system manufacturers' written recommendations.
  1. Mechanically mix Durable Decorative Concrete System materials.
  2. Do not apply concrete system to gypsum base if face paper has faded from exposure to light. Before applying concrete system, use remedial methods to restore bonding capability to faded face paper according to manufacturer's written recommendations and as approved by Architect.
- B. Concealed Surfaces: Omit Durable Decorative Concrete System in the following areas where concrete system will be concealed from view in the completed Work, unless otherwise indicated or required to maintain fire-resistance rating. Do not omit concrete system behind cabinets, furniture, furnishings, and similar removable items.
  1. Above suspended ceilings.
  2. Behind wood paneling and other permanently applied wall or ceiling finishes.
- C. Durable Decorative Concrete System: Smooth-troweled finish, unless otherwise indicated.

**END OF SECTION**