

Section 042510 – UNIT “Masonry Staining”

Part 1 – General

1.1 Related Documents

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 Summary

- A. This Section includes surface preparation and the application of masonry stains to porous exterior surfaces.
 - 1. Clay Masonry Units
 - 2. Cast-in-place Concrete
 - 3. Pre-cast concrete
 - 4. Block
 - 5. Manufactured stone
 - 6. Mortar
- B. Related Sections include the following:
 - 1. Division 4 Section “Masonry Restoration and Cleaning”
 - a. Unit Masonry Section 04-20-00

1.3 Submittals

- A. Product Data: For each type of stain indicated:
 - 1. Manufacturer’s Information: Manufacturer’s technical information, and if needed, instructions for handling and storing exterior masonry stain.
- B. Qualification Data: For Applicator
- C. Benchmark Samples (mockups): Provide up to five (5) full-coat benchmark loose samples sequentially to determine the closest stain matching to existing brick. A field sample can be tested on a 10 sq. ft. area to be determined by the owner and the architect on the actual surface of the building to be stained.

1.4 Quality Assurance

- A. Applicator Qualifications: A firm experienced in applying exterior masonry stains, design and extent to those indicated for this project. Whose company has resulted in applications with a record of successful in-service performance that exceeds 15 years.
- B. Submit the following Test Reports:
 - 1. Artificial Weathering (TEC050-1 Standard Operating Procedures).
 - a. Should provide results for at least 40 years of weathering.
 - 2. Water Vapor Transmission Test (ASTM E 96- Water Method- Modified)
- C. Submit 10 jobs over 15 years
 - a. The date on which the work was completed
 - b. The precise location of the job including description of the structure or portion of the structure stained, street address, city, state and zip code
 - c. Name of Product used

1.5 Warranty

A. SPECIAL LIFETIME WARRANTY: Installer's standard form in which installers guarantee their product will not fade, peel, crack or blister. The installer agrees to re-apply the treatment system in areas that no longer match to a casual observer over the lifetime of the masonry unit from the date of Substantial Completion. This warranty excludes mortar.

1.6 Project Conditions

- A. Temperature Limitations: Apply Stains only when temperatures of surfaces to be stained and the surrounding air are between 45 degrees F (7 degrees C) and 100 degrees F (32 degrees C).
- B. Weather Limitations: Do not apply stain in snow, rain, dense fog or mist; when the relative humidity exceeds 95%, also do not apply to damp or wet surfaces.
1. Allow wet surfaces to dry thoroughly and attain temperature and conditions specified before starting or continuing with coating operation.

Part 2 – Products

2.1 Manufacturer

A. Masonry Cosmetics, Inc. 1625 Miami St, South Bend, IN 46613.
Tel: 574-234-1812, Fax: 574-234-2240, masonrycosmetics.com

2.2 Installer

- A. Installers Name
1. Masonry Cosmetics, Inc. 1625 Miami St, South Bend, IN 46613.
Tel: 574-234-1812, Fax: 574-234-2240, masonrycosmetics.com
 2. Other approved masonry staining contractor

2.3 Unit Masonry/Concrete Stain Materials, General

- A. Materials: (basis of design): Ceramic stain shall contain a colored "talcum powder" consistency (80-100 mesh) pigment, identical to natural pigments used in brick manufacturing, a proprietary bonding chemical and water. The water shall act as a carrying agent to feed the pigment and bonding chemical into the pore structure of the masonry units. The bonding chemical changes from a liquid to a solid state during and after the drying process.
- B. Materials once applied should not leave a visible sheen or film on masonry unit.
- C. VOC Content is to be very low and have an estimated maximum value of 0.01 g/g.

2.4 Products Not To Use

- A. Water repellent masonry stains
- B. Acrylic paint
- C. Hydrous, multiple polymer formulations of resin solids

Part 3 – Execution

3.1 Preparation

- A. General: Remove hardware, machined surfaces, lighting fixtures and similar items already installed that are not being stained. If removal is impractical or impossible because of size and weight of the item, provide surface- applied protection before surface preparation and staining.
1. After completing staining operations, reinstall items removed using workers skilled in trades involved.

- B. Surface Preparation: Clean and prepare surfaces to be stained according to manufacturer's written instructions for each particular substrate condition and as specified.
1. Remove surface dirt, oil or grease by washing with a detergent solution recommended by masonry manufacturer; rinse thoroughly with clean water and allow to dry.
 2. Walls will need to be free of any acid or cleaning solution residue prior to any staining. Keeping the PH level on the wall as close to neutral as possible.
 3. Ensure structurally sound surfaces that are dry, clean and free of the following: dirt, moisture, loose particles, oil, grease, asphalt, tar, paint, wax, rust, waterproofing, curing and parting compounds and other foreign matter.

3.2 Application

- A. Mixing: Mix and prepare stains according to the manufacturer's written instructions. Stir stain thoroughly before applying and frequently during application to maintain color consistency.
1. Maintain containers used in mixing and application in a clean condition, free of foreign materials and residue.
 2. Stir material before application to produce a mixture of uniform density. Stir as required during application.
- B. Minimum Spreading Rate: Apply stain to manufacturer's recommended spreading rate measured by bricks stained per brush to ensure proper penetration. Apply aqueous slurry (stain) with brush individually to each masonry unit, maintaining the integrity of the mortar (by artistic means).
1. Do not apply stain on surfaces that are not sufficiently dry. If succeeding application is needed, ensure that the surface is dry before re-applying.
 4. Apply all stain with a 100% polyester brush by hand to provide a uniform blending of color to the masonry wall.
 5. No spraying or rolling of materials allowed.

3.3 Field Quality Control

- A. Architect/Owner shall review and approve "artistic" application of stain by Contractor in a test area, mock-up panel or loose samples.

3.4 Cleaning

- A. Cleanup: At the end of each work day, remove empty cans, rags, rubbish and other discarded materials from the project site.
1. After completing staining, clean window glass and other surfaces. Remove splattered stain by proper methods without scratching or damaging adjacent finished surfaces.
 2. Dispose of excess materials according to state, federal and local governmental regulations.

3.5 Protection

- A. Protect work of other trades as necessary, whether being stained or not, against damage from staining. Correct damage by cleaning, repairing and re-staining as approved by architect.

End of Section 042510