

SECTION 099650

ARCHITECTURAL COATINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes surface preparation and application of architectural coating systems on the following substrates:
 - 1. Metal.
 - 2. Brick.
 - 3. Concrete and masonry.
 - 4. Ceiling Tiles.
 - 5. Fiberglass.
 - 6. Gypsum board.
 - 7. Vinyl.
 - 8. Glass.
 - 9. Tile.
 - 10. Plastic.
 - 11. Wood.
 - 12. Previously painted surfaces.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include preparation requirements and application instructions.
- B. Samples for Initial Selection: For each type of topcoat product indicated.
- C. Samples for Verification: For each type of coating system and in each color and gloss of topcoat indicated.
 - 1. Samples to be prepared and submitted to Contractor by approved installer.
 - 2. Submit Samples on rigid backing, 8 inches square.
 - 3. Step coats on Samples to show each coat required for system.
 - 4. Label each coat of each Sample.
 - 5. Label each Sample for location and application area.
- D. Product List: For each product indicated, include the following:

1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.
2. VOC content.

1.4 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 1. Coatings: 5 percent, but not less than 1 gal of each material and color applied.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified installer who employs workers who are trained by coating system manufacturer for installation techniques required.
- B. Mockups: Apply mockups of each coating system indicated to verify preliminary selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
 1. Architect will select one surface to represent surfaces and conditions for application of each coating system specified in Part 3.
 - a. Wall and Ceiling Surfaces: Provide samples of at least 100 sq. ft.
 - b. Other Items: Architect will designate items or areas required.
 2. Simulate finished lighting conditions for review of mockups.
 3. Final approval of color selections will be based on mockups.
 - a. If preliminary color selections are not approved, apply additional mockups of additional colors selected by Architect at no added cost to Owner.
 4. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
- C. Samples shall be made by company doing the installation in accordance with Contractors requirements.
- D. Each installation is solely the responsibility of the Dealer.
- E. SprayStone USA, Inc. assumes no responsibility for on-site inspections or application of its products.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F.

1. Maintain containers in clean condition, free of foreign materials and residue.
2. Remove rags and waste from storage areas daily.

1.7 FIELD CONDITIONS

- A. Apply coatings only when temperature of product, surfaces to be coated, and surrounding air temperatures are above 45 deg F and surface temperature is at least 5 deg F above the dew point. For optimum application properties, bring material to at least 50 deg F.
- B. Air and surface temperatures must remain above 45 deg F for the next 24 hours.
- C. Avoid exterior application late in the day when dew and condensation are likely to form or if rain or snow is expected.
- D. Lighting: Do not install interior coating systems until a permanent level of lighting, or a lighting level that simulates the finished lighting, is provided on surfaces to receive coating systems.

1.8 WARRANTY

- A. Warranty: Manufacturer's standard form in which manufacturer warrants that the SprayStone Coating materials shall be free from the following defects within specified warranty period.
 1. Defects defined as:
 - a. Loss of bond, peeling, flaking, blistering, and weathering to expose underlying substrate.
 2. Warranty Period: 5 years from date of Substantial Completion.
 3. Conditions:
 - a. Warranty will apply provided that SprayStone is applied to a suitable substrate that has been properly prepared and primed.
 - b. Installation must be performed by a SprayStone Factory Trained Applicator.

PART 2 - PRODUCTS

2.1 ARCHITECTURAL COATINGS

- A. Exterior/interior factory pre-mixed single component paint, 100 percent acrylic, LOW VOC, environmentally friendly, conventional pressure-feed spray applied, and a cost effective alternative to real granite.
 1. Manufacturer: Subject to compliance with requirements, provide the following:
 - a. Spray Stone USA, Inc.; SprayStone GT Series Top Coat.
 2. Colors: As selected by Architect from manufacturer's full range.

B. Performance Test Data:

1. Surface-Burning Characteristics: Comply with ASTM E 84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 - a. Flame-Spread Index: 25 or less (Class A).
 - b. Smoke-Developed Index: 10 or less (Class A).
2. Adhesion: According to ASTM D 3359.
 - a. No loss of Adhesion between primer and SprayStone GT.
 - b. No loss of Adhesion between SprayStone GT and clear sealer.
3. Yellowness Evaluation: According to ASTM E 313 using ASTM D 4587 UV Test Method.
 - a. Initial yellowness Index: 6.89.
 - b. Post UV Weathering Yellowness Index: 6.42.
4. Flexural Strength: No Cracking (Pre- and Post- 1000 hour UV testing) according to ASTM D 522 Mandrel Bend Test.
5. Tensile Strength: According to ASTM D 2370.
 - a. Pre UV Weathering: 212 psi (average).
 - b. Post UV Weathering: 540 psi (average).
6. Water-Vapor Permeance: 20.124 perms (average) according to ASTM E 96.
7. Water-Vapor Transmission: 121.8 g/(day m²) according to ASTM E 96.

2.2 MIXING

- A. SprayStone GT Series is mixed by slow pouring from clean bucket to bucket a minimum of two times (2X) and a maximum of four times (4X) until the required consistency is reached.
- B. SprayStone OP (Outer Phase) may be required if container has been opened 7 days or more, or if the SprayStone Coating in an unopened bucket had been produced more than 2 months prior to it being opened, – SprayStone OP should be added at a ratio of 5 percent maximum / per remaining SprayStone GT material, to get to the recommended consistency.

2.3 APPLICATION EQUIPMENT

- A. SprayStone GT must be applied using conventional spray equipment, including a pressurized paint tank*, an air compressor operating at 5.0 SCFM at 90psi with air and fluid hoses, and a pressure-feed spray gun with a 2.5 mm fluid tip.
 1. *NOTE: professional spray equipment may cause harm; therefore manufacturer's instructions should be followed at all times.

2.4 AUXILIARY MATERIALS

- A. Substrate Primer: Compatible with substrate and recommended or approved by architectural coating manufacturer.
- B. Elastomeric Coating: Compatible with surface primer and recommended or approved by architectural coating manufacturer.
- C. Clear Sealer: Compatible with topcoat and recommended or approved by architectural coating manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content, surface conditions, compatibility with existing finishes and primers, and other conditions affecting performance of the Work.
- B. Proceed with coating application only after unsatisfactory conditions have been corrected.
 - 1. Beginning coating application constitutes Contractor's acceptance of substrates and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations applicable to substrates indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
 - 1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection.
- C. Surfaces to be coated must be dry, clean, sound, and free from all contamination including loose and peeling paint, dirt, grease, oil, wax, concrete curing agents and bond breakers, chalk, efflorescence, mildew, rust, product fines, and dust. Remove loose paint, chalk, and efflorescence by wire brushing, scraping, sanding, and/or pressure washing. Putty all nail holes and caulk all cracks and open seams. Sand all glossy, rough, and patched surfaces. Feather back all rough edges to sound surface by sanding. Prime all bare and porous substrates.
- D. Clean surfaces per ASTM D 4258: Standard Practice for Surface Cleaning Concrete for Coating. Vacuum cleaning, water cleaning, detergent water wash, power wash cleaning, steam cleaning, hand tool and mechanical cleaning are acceptable cleaning methods. Remove efflorescence by pressure washing or cleaning with dilute muriatic acid (following

manufacturer's instruction) or a solution of 1 part white vinegar to 4 parts water. Rinse thoroughly and allow to dry.

- E. Remove mildew by using a solution of 1 part chlorine bleach to 3 parts water. Before use, be sure to read and follow instructions and warnings on label.
- F. Dry substrate thoroughly to a moisture content under 12 percent. Clean chalky paint in good condition by sweep blasting, power washing, wire brushing, etc. to remove loose material. After cleaning, powdery or chalky, unpainted recommended substrates may be conditioned with a surface sealer.
- G. Brick: New brick and mortar should cure for at least 7 days and preferably 30 days prior to priming and painting. The pH of the substrate must be less than 13 before priming with this alkali resistant primer. Painting glazed brick is not recommended due to potential adhesion problems.
- H. Concrete And Masonry: For optimum performance, all new masonry, concrete, and stucco construction should cure for at least 7 days and preferably 30 days prior to priming and painting. The pH of the substrate must be less than 13 before priming with an alkali-resistant primer, and moisture content should be below 12 percent. Fill holes and cracks with an appropriate filler if a smoother uniform surface is desired. Surfaces previously coated with water thinned cement-based paint must be prepared with extra care. A masonry sealer may be applied to seal the surface. Check adhesion by applying a piece of masking tape. If the sealer peels off and has loose particles, remove all chalking or crumbling material, reseal and re-check adhesion.
- I. Aluminum: This substrate may present potential adhesion problems. Any coating applied directly to aluminum should be spot applied, allowed to cure overnight, and then evaluated for adhesion. If adhesion is good, the application may proceed. Check adhesion by applying a piece of masking tape. When the masking tape is removed, if the coating peels off, the surface must be scuff sanded prior to proceeding to ensure mechanical adhesion.
- J. Ferrous Metal: The surface must be cleaned thoroughly to remove any dust, rust, and surface contaminants, and then primed with an appropriate primer for metal.
- K. Galvanized Steel: Caution must be used when selecting coatings for use on all galvanized metal surfaces. These substrates may have a factory-applied stabilizer, which is used to prevent white rusting during storage and shipping. Such stabilizers must be removed by either brush blasting, sanding or chemical treatment prior to priming with an appropriate primer for metal.
- L. Wood: Unpainted wood or wood in poor condition should be sanded smooth, wiped clean, and then primed with an appropriate primer. Any knots or resinous areas must be primed before painting. Countersink all nails, putty flush with surface, then prime.
- M. Gypsum Wallboard-Drywall: Nails or screws should be countersunk, and they along with any indentations should be mudded flush with the surface, sanded smooth and cleaned to remove any dust, then prime prior to painting the substrate.

3.3 APPLICATION

- A. Select an appropriate primer for the chosen surface and apply according to manufacturer's instructions. Allow to dry.
- B. Once primer has dried (refer to manufacturer's instructions), apply an elastomeric coating (if specified by the Architect). Allow to dry.
- C. Apply SprayStone with the pressure-feed spray gun. Hold the gun 18-30 inches from the surface and spray in smooth, even back-and-forth movements. Use steady, horizontal strokes and apply a light coat, allowing for about an 80 percent coverage. Some substrate should still be visible at this point. Do not over apply SprayStone as it will inhibit proper drying.
- D. Allow the 1st coat to dry for a minimum of 4 hours, depending on atmospheric conditions, and apply the second coat, this time using vertical strokes. You should now achieve 100 percent coverage and substrate should not be visible. The finished coat has to be visually even and homogeneous, with no "bald spots" or leaks.
- E. Allow 2nd coat to dry for a minimum of 4 hours, depending on atmospheric conditions. Drying times may vary with temperature, humidity and other environmental factors.
- F. Once the 2nd coat is completely dry, apply a thin, even layer of clear top coat according to manufacturer's instructions.
- G. For detailed installation instructions, please contact the Manufacturer.

3.4 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing coating application, clean spattered surfaces. Remove spattered coatings by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from coating operation. Correct damage by cleaning, repairing, replacing, and recoating, as approved by Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced coated surfaces.

3.5 MAINTENANCE

- A. Clean with a liquid or powdered laundry detergent (without bleach) in a normal solution of one cup to five gallons of water. Agitate with a soft bristled brush as needed.
- B. For resealing or other maintenance, please contact the Manufacturer.

3.6 EXTERIOR FIVE COAT SYSTEM

- A. Prepare surface as per Primer manufacturer's recommendations.
- B. 1 Coat recommended Surface Primer (per manufacturer's recommendations).
- C. 1 Coat Elastomeric Coating (per manufacturer for product and color recommendations).
- D. 1 Coat SprayStone GT series – ~80 percent coverage.
- E. 1 Coat SprayStone GT series – 100 percent coverage.
- F. 1 Coat recommended Clear Top Coat Sealer (Flat or Satin sheen) (per manufacturer's product recommendations).

3.7 INTERIOR THREE COAT SYSTEM

- A. Prepare surface as per Primer manufacturer's recommendations.
- B. 1 Coat recommended Surface Primer (per manufacturer's recommendations).
- C. 1 Coat SprayStone GT series – ~80 percent coverage.
- D. 1 Coat SprayStone GT series – 100 percent coverage.

END OF SECTION

DISCLAIMER

SprayStone products must be installed in accordance with the manufacturer's current, published specifications, product instructions, and installation procedures. Each installation is solely the responsibility of the Installer.

The architecture, design and engineering of a project using SprayStone products are the responsibilities of the project's design professional. A SprayStone coating can be installed as the exterior coating on a wall assembly approved and constructed pursuant to all applicable code requirements for that structure. The applicator must consult the applicable code requirements for the jurisdiction in which the construction is commencing, not only to the application of SprayStone, but also to the substrate upon which it is applied. Failure to adhere to those code requirements by the applicator could render the application deficient and nullify SprayStone product warranty from SprayStone USA, Inc.

SprayStone USA, Inc. will warrant the performance of a properly installed SprayStone coating as defined in SprayStone USA, Inc.'s published 5 Year Limited Warranty documents. Please contact SprayStone USA, Inc., for additional information.