SECTION 099653 - ELASTOMERIC COATINGS

Revise this Section by deleting and inserting text to meet Project-specific requirements.

Verify that Section titles referenced in this Section are correct for this Project's Specifications; Section titles may have changed.

1. GENERAL
   * + 1. RELATED DOCUMENTS
          1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
       2. SUMMARY
          1. Section includes surface preparation and application of elastomeric coatings to the following exterior substrates:

Revise list below to suit Project.

Concrete.

Concrete unit masonry.

Stucco.

* + - 1. SUBMITTALS
         1. Submittals for this section are subject to the re-evaluation fee identified in Article 4 of the General Conditions.
         2. Manufacturer’s installation instructions shall be provided along with product data.
         3. Submittals shall be provided in the order in which they are specified and tabbed (for combined submittals).
         4. Product Data: For each type of product.

See "Writing Guide" Article in the Evaluations for discussion of first subparagraph below.

Indicate VOC content.

* + - * 1. Samples for Initial Selection: For each type of elastomeric coating.

Delete "Samples for Initial Selection" paragraph above if colors and other characteristics are preselected and specified or scheduled. Retain "Samples for Verification" paragraph below with or without above.

* + - * 1. Samples for Verification: For each type of elastomeric coating indicated and in each color and gloss.

Submit Samples on same type of substrate as that to receive application, 8 inches square.

Apply coats on Samples in steps to show each separate coat, including primers and block fillers as applicable.

Label each coat of each Sample.

Label each Sample for location and application area.

* + - * 1. Product List: Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules. Include color designations.
      1. MAINTENANCE MATERIAL SUBMITTALS
         1. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

If necessary, replace percentage in "Quantity" subparagraph below with a specific number of gallons (liters) or cases and include an expanded description of the quantity of each material, color, and texture.

Quantity: Furnish an additional 5 percent but not less than 1 gal. of each material, color, and texture applied.

* + - 1. QUALITY ASSURANCE
         1. Mockups: Apply mockups of each paint system indicated and each color and finish selected to verify preliminary selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.

Director’s Representative will select one surface to represent surfaces and conditions for application of each paint system.

Vertical and Horizontal Surfaces: Provide samples of at least 100 sq. ft.

Other Items: Director’s Representative will designate items or areas required.

Final approval of color selections will be based on mockups.

If preliminary color selections are not approved, apply additional mockups of additional colors selected by Director’s Representative at no added cost to the State.

Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Director’s Representative specifically approves such deviations in writing.

Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

* + - 1. DELIVERY, STORAGE, AND HANDLING
         1. 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.

Maintain containers in clean condition, free of foreign materials and residue.

Remove rags and waste from storage areas daily.

* + - 1. FIELD CONDITIONS

Revise this article if manufacturer's requirements are more restrictive.

* + - * 1. Apply coatings only when temperature of surfaces to be coated and ambient air temperatures are between 50 and 90 deg F unless otherwise permitted by manufacturer's written instructions.
        2. Do not apply coatings in snow, rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.
        3. Allow wet surfaces to dry thoroughly and attain temperature and conditions specified before starting or continuing coating operation.

1. PRODUCTS
   * + 1. MANUFACTURERS

Retain "Products" paragraph below and insert lists of manufacturers and products in Elastomeric Coating Schedule to require specific products or a comparable product from other manufacturers.

* + - * 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to products listed in the Elastomeric Coating Schedule for the paint category indicated.
      1. MATERIALS
         1. Material Compatibility:

Systems could fail if paints used for individual coats are incompatible. MPI's paint systems match primers and topcoats and take compatibility into consideration.

Materials for use within each paint system shall be compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.

For each coat in a paint system, products shall be recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

* + - * 1. Colors: [**As selected by Director’s Representative from manufacturer's full range**] [**Match Director’s Representative's samples**] [**As indicated in a color schedule**].

[**10**] [**20**] [**30**] percent of surface area will be painted with deep tones.

Crack fillers are used when cracks in substrate are present. Elastomeric coatings will bridge hairline cracks, but larger cracks must be filled before applying finish coatings. Some manufacturers do not make specific recommendations for crack fillers. Coating type and classification for these products may vary with manufacturer.

* + - * 1. Crack Fillers: Elastomeric coating manufacturer's recommended, factory-formulated crack fillers or sealants, including crack filler primers, compatible with substrate and other materials indicated.

Manufacturer may not require a primer with a two-coat elastomeric coating system but may recommend a primer when a one-coat system is used; may not require a primer on new construction but may recommend one for existing construction if chalking is present; and may not require a primer because manufacturer claims product is self-priming.

* + - * 1. Primer: Elastomeric coating manufacturer's recommended, factory-formulated, alkali-resistant primer compatible with substrate and other materials indicated.

1. EXECUTION
   * + 1. EXAMINATION
          1. Examine substrates and conditions, with Applicator present, for compliance with manufacturer's requirements for maximum moisture content, alkalinity, and other conditions affecting performance of work.
          2. Begin coating only when moisture content of substrate is 12 percent or less when measured with an electronic moisture meter.
          3. Begin coating no sooner than 28 days after substrate is constructed and is visually dry on both sides.
          4. Verify that substrate is within the range of alkalinity recommended by manufacturer.
          5. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
          6. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry.
       2. PREPARATION
          1. Comply with manufacturer's written instructions applicable to substrates and coating systems indicated.

Revise first paragraph below if additional requirements are necessary to suit Project.

* + - * 1. Remove hardware and hardware accessories, plates, machined surfaces, light fixtures, and similar items already installed that are not to be coated. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and coating.

After completing coating operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.

* + - * 1. Clean substrates of substances that could impair bond of coatings, including dirt, oil, grease, and incompatible paints and encapsulants. Do not coat surfaces if moisture content or alkalinity of surfaces to be coated exceeds that permitted in manufacturer's written instructions.

Remove incompatible primers and reprime substrate with compatible primers as required to produce coating systems indicated.

Perform cleaning and coating application so dust and other contaminants from cleaning process will not fall on wet, newly coated surfaces.

Retain paragraph below for crack repair. Cracks must be filled before coating to maintain water-resistant protection and to prevent breaks in coating continuity that can allow deterioration. Crack treatment depends on crack size, and manufacturers may require specific procedures to suit their products on a Project-specific basis. Insert additional requirements below if required by manufacturers.

* + - * 1. Crack Repair: Fill cracks according to manufacturer's written instructions before coating surfaces.
      1. APPLICATION
         1. Apply elastomeric coatings according to manufacturer's written instructions.

If Project requires restricted application method (e.g., using only spray or rollers), revise first subparagraph below to suit Project.

Use equipment and techniques best suited for substrate and type of material being applied.

Coat surfaces behind movable items the same as similar exposed surfaces.

Apply each coat separately according to manufacturer's written instructions.

* + - * 1. Primers: Apply at a rate to ensure complete coverage.
        2. Block Fillers: Apply at a rate to ensure complete coverage with pores filled.
        3. Elastomeric Finish Coat(s): Minimum two coats with a total dry film thickness of 16 to 18 mils.

Retain first paragraph below if tinting is required. Different tints will show through as topcoat erodes.

* + - * 1. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Tint undercoats similar to color of topcoat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.
        2. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform finish, color, and appearance.
        3. Apply coatings to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.
        4. Apply coatings to prepared surfaces as soon as practicable after preparation and before subsequent surface soiling or deterioration.
        5. Spray Application: Use spray equipment for application only when permitted by the Director’s Representative. Wherever spray application is used, do not double back with spray equipment to build up film thickness of two coats in one pass.
      1. FIELD QUALITY CONTROL

Retain this article for large projects or critical coatings where additional control is required. Retain if tests are required.

* + - * 1. Testing of Paint Materials: The Director’s Representative reserves the right to invoke the following testing procedures:

The Director’s Representative will engage the services of a qualified testing agency to sample materials being used. Samples of material delivered to Project site will be taken, identified, sealed, and certified in presence of Contractor.

Testing agency will perform tests for compliance of materials with product requirements.

The Director’s Representative may direct Contractor to stop coating application if test results show materials being used do not comply with requirements. Remove noncomplying materials from Project site, pay for testing, and recoat surfaces that were coated with rejected materials. Remove rejected materials from previously coated surfaces if, on recoating with complying materials, the two coatings are incompatible.

* + - * 1. Field Testing and Inspection: The Director’s Representative reserves the right to engage the services of a qualified testing agency to verify installed thickness of elastomeric coatings.

Insert additional field quality-control requirements to suit Project.

* + - 1. CLEANING AND PROTECTION
         1. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
         2. After completing coating application, clean spattered surfaces. Remove spattered coatings by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
         3. Protect work of other trades against damage from coating application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Director’s Representative, and leave in an undamaged condition.
         4. At completion of construction activities, touch up and restore damaged or defaced coated surfaces.
      2. ELASTOMERIC COATING SCHEDULE
         1. Concrete, Concrete Unit Masonry, EIFS, and Stucco Substrates:

Elastomeric Coating System:

Prime Coat: As recommended in writing by topcoat manufacturer.

Intermediate Coat: As recommended in writing by topcoat manufacturer.

Retain the following Sub-paragraph for a flat coating.

Topcoat: Elastomeric, pigmented, exterior, water-based, flat coating.

Products: Subject to compliance with requirements, manufacturer’s products include but are not limited to the following:

Behr Paint; Exterior Elatomeric Masonry, Stucco & Brick Paint.

PPG Architectural Finishes, Inc.; Perma-Crete Pitt-Flex®.

Sherwin-Williams; ConFlex™ SherKastic®.

Or equal.

Properties:

Solids by Weight: 53 percent minimum.

Solids by Volume: 40 percent minimum.

Solvent: Water

Vehicle: 100% Acrylic.

Weight per Gallon: 10.5 lbs. minimum.

Wet Film Thickness: 16 mils minimum

Dry Film Thickness: 6 mils minimum.

Retain the following Sub-paragraph for a textured coating.

Topcoat: Elastomeric, pigmented, exterior, water-based, nonflat coating.

Products: Subject to compliance with requirements, manufacturer’s products include but are not limited to the following:

BASF Corporation; Master Builders Solutions; MasterProtect® HB 400 Coarse.

Textured Coatings of America, Inc.; TEX-COTE XL 70® “W”.

Tremco, Inc.; TREMGard® HB.

Or equal.

Properties:

Solids by Weight: 55 percent minimum.

Solids by Volume: 50 percent minimum.

Solvent: Water

Vehicle: 100% Acrylic.

Wet Film Thickness: 22 mils minimum

Dry Film Thickness: 11 mils minimum.

END OF SECTION 099653