

**SECTION 099113  
EXTERIOR PAINTING**

**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:
  - 1. Primers.
  - 2. Intermediate coatings.
  - 3. Finish coatings.

**1.3 ACTION SUBMITTALS**

- A. Product Data: For each type of product.
  - 1. Include preparation requirements and application instructions.
  - 2. Indicate VOC content.
- B. Samples for Verification: For each type of paint system and finish.
  - 1. Submit Samples on rigid backing, 8 inches (200 mm) square.
  - 2. Apply coats on Samples in steps to show each coat required for system.
  - 3. Label each coat of each Sample.
  - 4. Label each Sample for location and application area.
- C. Product Schedule: Use same designations indicated on Drawings to cross-reference paint systems specified in this Section. Include color designations.

**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. Paint Products: 5 percent, but not less than 1 gal. (3.8 L) of each material and color applied.

#### 1.5 QUALITY ASSURANCE

- A. Mockup: Apply mockup of paint system indicated, and each color and finish selected to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for materials and execution.
  1. Mockup shall be delivered to Site for review.
  2. Landscape Architect will select one surface to represent surfaces and conditions for application of paint system.
    - a. Vertical and Horizontal Surfaces: Provide samples of at least 100 sq. ft. (9 sq. m).
    - b. Other Items: Landscape Architect will designate items or areas required.
  3. Final approval of color or finish selections will be based on mockup.
    - a. If preliminary color or finish selections are not approved, apply additional mockup of additional colors selected by Landscape Architect at no added cost to Owner.
  4. Approval of mockup does not constitute approval of deviations from the Contract Documents contained in mockup unless Landscape Architect specifically approves such deviations in writing.
  5. Subject to compliance with requirements, approved mockup may become part of the completed Work if undisturbed at time of Substantial Completion.

#### 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 (7 deg C).
  1. Maintain containers in clean condition, free of foreign materials and residue.
  2. Remove rags and waste from storage areas daily.

#### 1.7 APPLICATION CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F (10 and 35 deg C).
- B. Do not apply paints in snow, rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than 5 deg F (3 deg C) above the dew point; or to damp or wet surfaces.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following, or approved equal:
  - 1. Tnemec Company, Inc.  
6800 Corporate Drive, Kansas City, MO 64120-1372  
Phone: 1-816-483-3400  
[www.tnemec.com](http://www.tnemec.com)
- B. Source Limitations: Obtain paint products from single source from single manufacturer.

### 2.2 PAINT PRODUCTS, GENERAL

- A. Material Compatibility:
  - 1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer based on testing and field experience.
  - 2. For each coat in a paint system, provide products recommended in writing by coating manufacturer for use in paint system and on substrate indicated.
- B. Color: Black.

### 2.3 PRIMERS

- A. Polyamidoamine Epoxy Metal Primer: Corrosion-resistant, solvent-based, two-component epoxy primer formulated for use on prepared, exterior ferrous- and galvanized-metal surfaces.
  - 1. Series N69 Hi-Build Epoxoline II, manufactured by Tnemec Company, Inc., or approved equal.

### 2.4 INTERMEDIATE COATINGS

- A. Aliphatic Acrylic Polyurethane: Low VOC, aliphatic polyurethane coating that provides excellent color and gloss retention for exterior applications to steel, concrete and other miscellaneous substrates.
  - 1. Series 1095 Endura-Shield, manufactured by Tnemec Company, Inc., or approved equal.

## 2.5 FINISH COATINGS

- A. Advanced Thermoset Solution Fluoropolymer: A high-solids fluoropolymer coating that provides an ultra-durable finish with user friendly brush, roll and conventional spray application.
  - 1. Series 1071 Fluoronar, manufactured by Tnemec Company, Inc., or approved equal.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Contractor shall remove fence material to off-site location for Work.
- B. At off-site location examine substrates with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- C. Verify suitability of substrates, including surface conditions and compatibility, with finishes and primers.
- D. Proceed with coating application only after unsatisfactory conditions have been corrected.
  - 1. Application of coating indicates acceptance of surfaces and conditions by paint applicator.

### 3.2 PREPARATION

- A. Comply with manufacturer's written instructions applicable to substrates and paint systems 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. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
  - 1. **Existing iron material has lead-based paint. Existing paint should be removed using lead-safe methods at an off-site location.**
  - 2. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems specified in this Section.
  - 3. All surfaces must be clean, dry and free of oil, grease, chalk, and other contaminants.

- D. Cast/Ductile Iron Substrates: All external surfaces of ductile iron pipe and fittings shall be delivered to the application facility without asphalt or any other protective lining on the exterior surface. All oils, small deposits of asphalt paint, grease, and soluble deposits should be removed and uniformly abrasive blasted using angular abrasive in accordance with NAPF 500-03-04: External Pipe Surface condition.
1. When viewed without magnification, the exterior surfaces shall be free of all visible dirt, dust, loose annealing oxide, rust, mold coating, and other foreign matter. Any area where rust appears before application shall be reblasted.
  2. The surface shall contain a minimum angular anchor profile of 1.5 mils (38.1 microns) (Reference NACE RP0287 or ASTM D 4417, Method C).
  3. Contractor shall photograph surface conditions to demonstrate compliance with item 3.2.D.

### 3.3 INSTALLATION

- A. Apply paints in accordance with manufacturer's written instructions.
1. Use applicators and techniques suited for paint and substrate indicated.
  2. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
- B. If undercoats or other conditions show through finish coat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- C. Apply paints 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.

### 3.4 FIELD QUALITY CONTROL

- A. Dry Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test paint for dry film thickness.
1. Contractor shall touch up and restore painted surfaces damaged by testing.
  2. If test results show that dry film thickness of applied paint does not comply with paint manufacturer's written instructions, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with paint manufacturer's written instructions.

### 3.5 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
  - 1. Do not clean equipment with free-draining water and prevent solvents, thinners, cleaners, and other contaminants from entering into waterways, sanitary and storm drain systems, and ground.
  - 2. Dispose of contaminants in accordance with requirements of authorities having jurisdiction.
- B. During installation on-site, do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage during installation. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Landscape Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

### 3.6 EXTERIOR PAINTING SCHEDULE

- A. Steel and Iron Substrates:
  - 1. High Performance Coating System:
    - a. Prime Coat: Polyamidoamine Epoxy.
    - b. Intermediate Coat: Aliphatic Acrylic Polyurethane.
    - c. Finish Coat: Advanced Thermoset Solution Fluoropolymer, semigloss.

END OF SECTION 099113