

## SECTION 09 9600

### HIGH-PERFORMANCE COATINGS

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Work includes but is not limited to following. All work is to be performed in the shop, other than minor touch-ups necessary for a complete installation.
  - 1. Finish coating for exterior ferrous metal, as indicated.
  - 2. Preparation of surfaces.
  - 3. Inspection, as specified in Section 09 9100 - PAINTING.
- B. Related Documents and Sections: Examine Contract Documents for requirements that directly affect or are affected by Work of this Section. Other Documents and Sections that directly relate to work of this Section include, but are not limited to:
  - 1. General provisions of the Contract, including General and Supplementary Conditions, and Division 01 General Requirements Specification Sections.
  - 2. Section 05 1200 - STRUCTURAL STEEL.
  - 3. Section 09 9100 - PAINTING.

##### 1.2 SYSTEM DESCRIPTION

- A. References
  - 1. Applicable provisions of the following standards shall apply to the work of this Section, except as modified herein, and are hereby made a part of these Contract Specifications to the extent required:
    - a. MPI, Master Painters Institute Architectural Painting Specification Manual, latest edition
    - b. SSPC, Steel Structures Painting Council Volume 2: Systems and Specifications
  - 2. Conform to governing regulations including, but not limited to Federal, State, and local requirements.

##### 1.3 SUBMITTALS

- A. Action Submittals:
  - 1. Submit the following in accordance with requirements of Division 01:
    - a. Same as specified in Section 09 9100 - PAINTING.
- B. Informational Submittals:
  - 1. Qualifications: Applicator qualifications.

##### 1.4 QUALITY ASSURANCE

- A. Applicator Qualifications:
  - 1. Employ only qualified journeymen. Apprentices may be employed to work under directions of qualified journeymen, in accordance with trade regulations.
    - a. Submit letter stating last three jobs giving:
      - 1). Start date.

- 2). Completion date.
      - 3). Architect.
      - 4). Amount of Subcontract cost.
    2. Applicator is required to be acceptable to Architect and paint manufacturer and maintain a full, competent crew.
  - B. Regulatory Requirements: Same as defined in Section 09 9100 - PAINTING.
  - C. Painting inspection, same as specified in Section 09 9100 - PAINTING.
  - D. Work of Sections 099600 - HIGH-PERFORMANCE COATINGS, and 099100 - PAINTING, to be performed by or under direct supervision of one installer. A pre-application meeting is required between all parties including painting Trade Contractor, Contractor, paint manufacturer's representative, Owner and Architect before work of these sections begin.
- 1.5 DELIVERY, STORAGE, AND HANDLING
- A. Same as specified in Section 09 9100 - PAINTING, and as required by manufacturer.
- 1.6 WARRANTY
- A. Same as specified in Section 09 9100 - PAINTING - 2 years. Note that this is an extension of the one-year warranty.

## **PART 2 PRODUCTS**

### **2.1 ACCEPTABLE MANUFACTURERS**

- A. Manufacturer and Materials: Tnemec, Carboline, Ameron, Axalta Coating Systems, Sherwin-Williams, or acceptable equivalent.
- B. Except as otherwise indicated, Basis for Design are products and systems by Tnemec, and cited herein for type, quality and performance.

### **2.2 PAINT SYSTEMS**

- A. Four Coat System for Exterior Steel: Provide the following shop-applied system, or equivalent system acceptable to the Architect by another named manufacturer:
  1. Surface Preparation: SSPC-SP6 Commercial Blast, angular surface profile of 1 mil.
  2. Tnemec System:
    - a. Coat 1: Tnemec Series 394 PerimePrime at 2.5-3.5 mils DFT (shop applied)
    - b. Coat 2: Tnemec Series 161HS Tnemec Fascure Epoxy at 4-6 mils DFT
    - c. Coat 3: Tnemec Series 1077 EnduraLume at 2-3 mils DFT in 41MT (or, if warranty is needed, Series 1078 Fluoronar Metallic)
    - d. Coat 4: Tnemec Series 1079 Metallic Clearcoat at 2-3 mils DFT.
  3. Colors: As selected by the Architect from manufacturer's entire line, including deep tones.

## **PART 3 EXECUTION**

### **3.1 EXAMINATION**

- A. Verify installation conditions as satisfactory to receive work of this Section. Do not install until unsatisfactory conditions are corrected. Beginning work constitutes acceptance of conditions as satisfactory.

### 3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates indicated.
- B. Clean substrates of substances that could impair bond of coatings, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
  - 1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce coating systems indicated.
- C. Prepare surfaces as recommended by manufacturer and following:
  - 1. SSPC SP-6, Commercial Blast Cleaning. Prime by end of same work day and before forming of any visible rust.
- D. Shop-Primed Steel Substrates: Clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop priming to comply with SSPC-PA 1 for touching up shop-primed surfaces.

### 3.3 APPLICATION

- A. Apply the work in strict conformance with manufacturer's directions.

### 3.4 PATCHING

- A. At completion of work, repair surfaces damaged by other trades and requiring touch-up or refinishing. Repaint entire surface as needed to provide uniform finish, color, and appearance.

### 3.5 TOUCH UP PAINTING

- A. Immediately after erection, clean field welds, bolted connections, and abraded areas of shop paint in accordance with SSPC-SP11. Apply paint to exposed areas using same material as used for shop painting.

### 3.6 FIELD QUALITY CONTROL

- A. Same as specified in Section 09 9100 - PAINTING.
- B. Film Thickness Tests; as directed:
  - 1. Use suitable wet film gauge, verify mil thicknesses, in selected locations.
  - 2. Test surfaces with Tooke or approved dry film gauge, for total dry film thicknesses.

### 3.7 CLEANING AND PROTECTION

- A. Protect the work of other trades and work of this Section already installed against soiling and damage by the exercise of reasonable care and precautions. Repair or replace any work so damaged or soiled.
- B. At completion of construction activities of other trades, touch up and restore damaged or defaced coated surfaces.

**END OF SECTION**

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