

# Special Specification 6109

## Powder Coating




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### 1. DESCRIPTION

Furnish, prepare, and apply powder coating on fully-galvanized items as shown on the plans.

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### 2. MATERIALS

Conform materials with the respective requirements shown on the plans, general notes and these Items.

- 2.1. **Acrylic Powder.** Use powder coating consisting of an acrylic resin type with no vinyl or styrene modification. Provide a formulation that meets the American Architectural Manufacturers Association (AAMA) 2605 standard or equivalent for color and gloss retention. Submit samples of the acrylic powder material with accompanying documentation showing conformance to AAMA 2605 or equivalent for color and gloss retention to the Engineer for approval.
- 2.2. **Color.** Use color indicated in the plans.
- 2.3. **Storage.** Follow the Manufacturer's recommendations concerning handling and storage of materials.

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### 3. CONSTRUCTION METHODS

Follow the Manufacturer's recommended procedures for applying powder coating to fully-galvanized items.

- 3.1. **Acrylic Powder Coating over Hot Dipped Galvanized Structural Steel.** Send Hot-dip galvanized parts to the coater without passivation (no dichromate top layer) and meet the following requirements:
- Prepare the galvanized items in accordance with ASTM D7803, Standard Practice for Preparation of Zinc (Hot-Dip Galvanized) Coated Iron and Steel Product and Hardware Surfaces for Powder Coating.
  - Use sweep blasting to remove oxidation and soils. Other methods of removal require approval by the Engineer. Wipe parts with a cleaning solvent to remove any oily residues.
  - If the powder coating is not applied within 24 hr after cleaning, re-clean the surface.
  - If required, pre-heat in accordance with powder coating manufacturer's recommendations.
  - Apply Acrylic Powder to minimum 4 mils to maximum 10 mils.
  - Ensure the coating is smooth, even, continuous, and free of drips, runs, sags, holidays, wrinkles, or other coating defects. Ensure the coating has a uniform appearance within all portions of the painted piece and all related pieces and components of a project.
  - Fully cure powder coating per powder Manufacturer's recommendations.
  - After all coating has been sufficiently cured per recommendation of the Manufacturer; wrap all coated pieces in paper and cardboard for direct shipment to the job site.
  - Repair scratches incurred at the job site per the powder coating manufacturer's recommendations.
  - Ensure all repairs are smooth, even, and visually match the remainder of the coated piece by use of feathering and other appropriate techniques to avoid sharp transitions.

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**4. PAYMENT**

The work performed, materials furnished and all labor, tools, equipment and incidentals necessary to complete the work under this Item will not be measured or paid for directly, but will be considered subsidiary to the various bid items of the contract.