

## SECTION 09 97 13 - INDUSTRIAL COATINGS

### PART I - GENERAL

#### 1.1 SUBMITTALS

- A. All submittals and finish schedules shall include all exterior and interior items such as siding, doors, frames, trim, base, sills, walls, decks, and railings. Indicate color number and gloss required for each item.
- B. At completion of the Project, provide a complete summary list of specific manufacturer's products and color identification numbers that were applied in this project. List shall compare each color number with each specified or selected color number. A copy of this list shall be given to the Owner.

#### 1.2 RELATED DRAWINGS

- A. *Section 01 78 23 – Operation and Maintenance Data*

#### 1.3 EXISTING CONDITIONS

- A. Any previously painted metal surface shall be inspected for the presence of lead.

#### 1.4 EXTRA MATERIALS

- A. Leave on the premises as directed by the Owner not less than 1 gallon of each standard color. All material shall be in one-gallon containers, clearly marked with manufacturer's name, color formula, and sheen.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

- A. Provide the best quality grade of coating as regularly manufactured by acceptable paint material manufacturers.
- B. Materials not displaying the manufacturer's identification as a standard, best grade product will not be acceptable.
- C. All paints and coatings shall be industrial grade as opposed to contractor grade. Listed manufacturers are for traditional paint products. Manufacturers for epoxy and urethane coatings must be pre-approved.
- D. Material Safety Data Sheets shall be included for all products used.

#### 2.2 MANUFACTURERS FOR TRADITIONAL PAINT PRODUCTS

- A. Pratt and Lambert
- B. Sherwin Williams
- C. MAB Paints
- D. Pittsburgh Paints
- E. Benjamin Moore

#### 2.3 MANUFACTURERS FOR SPECIALTY INDUSTRIAL COATINGS

- A. Specialty industrial coatings shall be used for steel exposed on exterior or harsh environments.
- B. Acceptable Manufacturers (or approved equal)
  - 1. Carboline
  - 2. Tnemec

### 3. Dupont

## 2.4 FINISHES

- A. Aluminum: Whether brushed, polished, or anodized aluminum shall have a factory finish or match the factory finish. This also includes storefronts, doors, and windows.

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Steel Structures Painting Council: All preparation and painting shall be done according to the Steel Structures Painting Council (SSPC).
- B. Rust Converter: Use of a rust converter in lieu of normal methods of cleaning is not allowed. *[Note to AE: Any exception to this requires an approved project variance.]*
- C. Surface Preparation Standards:
  - 1. Solvent Cleaning: Remove oil, grease, dirt, soil, salts, and contaminants by cleaning with solvent, vapor, alkali, emulsion, or steam.
  - 2. Hand Tool Cleaning: Remove loose rust, mill scale, and paint to degree specified by hand chipping, scraping, sanding, and wire brushing.
  - 3. Power Tool Cleaning: Remove loose rust, mill scale, and paint to degree specified by power tool chipping, scraping, sanding, and wire brushing.
  - 4. White Metal Blast Cleaning: Remove all rust, mill scale, paint and foreign matter by blast cleaning with wheel or dry or wet nozzle using sand, grit, or shot for very corrosive atmospheres where high cost of cleaning is warranted.
  - 5. Commercial Blast Cleaning: Blast clean until at least two-thirds of the surface area is free of all visible residues for rather severe conditions of exposure.
  - 6. Brush Off Blast Cleaning: Blast clean all surface area except tightly adhering residues of mill scale, rust, and coatings to expose numerous evenly distributed flecks of underlying metal.
  - 7. Near White Blast Cleaning: Blast clean nearly to White Metal cleanliness, until at least 95% of the surface area is free of all visible residues for high humidity, chemical atmosphere, marine, or other corrosive environments.
  - 8. Power Cleaning to Bare Metal: Completely remove all rust, scale, and paint by power tools with resultant surface profile.
- D. Ferrous Metals: Remove all corrosive deposits down to a bright metal and sound surface. Loose scale and rust found on new or unquoted iron or steel surfaces shall be removed. If surface has been protected with a coating of oil or grease it shall be solvent washed as described in this section. Steel exposed to abnormal conditions such as chemicals, condensation, frosting, and high humidity requires a primer with hard-drying characteristics and moisture resistance.
- E. Non-Ferrous Metals:
  - 1. Aluminum: Aluminum that has not been painted and exposed to weather may have aluminum oxide, or white rust. On the surface it may be pitted or coated with raised nibs. This shall be removed by means of hand tool cleaning, power tool cleaning, and near white blast cleaning as stated previously in this section.

2. Copper, Bronze, and Brass: These metals shall be treated in similar manner as aluminum. Copper may have oxidized to a deep bronze color, or if weathered for a long time, verdigris may have formed. These materials shall be removed in the same manner as described for aluminum in the previous paragraph and primed with a zinc chromate primer.
3. Galvanized Steel: Galvanized steel shall be cleaned as in the same manner as aluminum, copper, and bronze or allowed to weather for 6 months. The manufacturer of the galvanized metal shall use a paintable white rust preventer. Conventional coatings containing oil or alkyd resins shall not be used. Only special primers made for the use of galvanized metal are permitted. In severe environments or in area of high humidity, or continuous condensation brush blasting is recommended to insure maximum adhesion and performance.

### 3.2 APPLICATION

- A. Apply paint and coatings within an appropriate timeframe after cleaning when environmental conditions encourage flash rusting, rusting, contamination, or the manufacturer's specifications require earlier applications. Do not apply finishes that are not sufficiently dry unless manufacturer's directions state otherwise.

### 3.3 QUALITY CONTROL

- A. All surfaces, preparation and paint application shall be inspected.
- B. Painted surfaces shall be considered to lack uniformity and soundness if any of the following defects are apparent to the inspector.
  1. Runs, sags, hiding, or shadowing due to inefficient application methods.
  2. Evidence of poor coverage at rivet heads, plate edges, lap joints, crevices, pockets, corners, and re-entrant angles.
  3. Damage due to touching before paint is sufficiently dry, or any other contributory causes.
  4. Damage due to application on moist surfaces or due to inadequate protection from the weather.
  5. Damage or contamination of paint due to wind blown contaminants such as dust, sandblast materials, and salt spray.

### 3.4 CLEAN UP

- A. Remove all paint where it is spilled, splashed, splattered, or sprayed as work progresses using means and materials that are not detrimental to affected surfaces.

## PART 4 - SUBMITTALS

### 4.1 SCHEDULES

- A. *[Note to AE: Ensure schedules are submitted which will enable the replication or reorder of any manufactured product per Section 01 01 78 23 – Operation and Maintenance Data]*

END OF SECTION 09 97 13

This section of the *U of I Facilities Standards* establishes minimum requirements only.  
It should not be used as a complete specification.