# Section 099100
# Painting and Finishes
# (General)

## PART 1 - GENERAL

1.01 Conditions

A. The general provisions of the Contract, including General Conditions and Special Provisions apply to the work specified in this Section.

1.02 Description

A. Work includes, but is not limited to the following:

1. Provide all materials, tools, equipment, appliances, labor and supervision required to paint and finish all surfaces and/or components as specified herein and as indicated on the Drawings, including all miscellaneous items and labor required to complete the Work of this Section.

2. Surface preparation, priming and painting of all metal surfaces as indicated on Drawings or as follows:

a) Miscellaneous surfaces.

3. All surfaces that are left unfinished by the requirements of other sections shall be painted or finished as part of this contract.

B. Related Work described elsewhere.

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C. Definition: The term “paint”, as used herein, shall mean all coating systems materials, including primers, emulsions, enamels, stains, sealers and fillers, and other applied materials whether used as prime intermediate or finish coats.

1.03 Work Not Included

A. Pre-Finished Items: Unless otherwise specified or indicated on the Drawings, do not include the painting of items that are specified to receive manufacturer’s factory finish, i.e. such items as site furnishings, irrigation equipment, electrical equipment, etc. See applicable Sections.

B. Finished Metal Surfaces: Unless otherwise specified, all metal surfaces or anodized aluminum, stainless steel, chromium plate, copper, bronze or similar finished materials do not require painting.

1.04 Submittals

A. Provide in accordance with the General Conditions prior to ordering material, a complete, detailed list of materials proposed for use on work. Include affidavit from manufacturer stating that proposed materials are the best of their respective kinds and suitable for intended purpose. Submit in ample time to avoid delays in work if the list, or portions thereof, are rejected.

B. Painter shall prepare and submit color samples to match color chips in 12-inch square size and must receive approval from Project Inspector before applying final paint coats to finish surfaces. Approved samples shall be retained at the Project Inspector's office for record.

1.05 Paint Coordination

A. Provide prime coats which are compatible with finish paints used. Review other Sections of these specifications in which prime paints are to be provided to ensure compatibility of total painting system for various surfaces. Upon request from other trades, furnish information and specifications for finish materials proposed for use, to ensure compatible prime coats are used. Provide barrier coats over incompatible primers or remove and reprime as required. Notify Project Inspector in writing of any anticipated problems using specified painting systems with surfaces primed by others.

1.06 Job Conditions

A. Applicator shall examine areas, surfaces and conditions under which painting Work is to be applied and notify the Project Inspector in writing of conditions detrimental to proper and timely completion of Work. Do not proceed with Work until unsatisfactory conditions have been corrected in a manner acceptable to Project Inspector and Applicator, or Applicator shall assume responsibility for and rectify any unsatisfactory finish resulting.

B. Starting of painting Work shall be construed as Applicator's acceptance of surfaces and conditions.

## 1.07 Weather Conditions

A. Apply water base paints only when temperature of surfaces to be painted and surrounding air temperature are between fifty (50) degrees F (10 degrees C) and ninety (90) degrees F (32 degrees C), unless otherwise permitted by paint manufacturer's printed specifications.

B. Apply solvent-thinned paints only when temperature of surfaces to be painted and surrounding air temperatures are between forty-five (45) degrees F (7 degrees C) and ninety-five (95) degrees F (35 degrees C), unless otherwise permitted by paint manufacturer's printed specifications.

C. Do not apply paint in rain, fog or mist; or when relative humidity exceeds eighty-five (85) percent; or to damp or wet surfaces.

## 1.08 Delivery and Storage

A. Deliver materials to job site in original, new and unopened packages or containers bearing manufacturer's name and label, and the following information:

Manufacturer's Name
Manufacturer's stock number and date of manufacture
Special color mix: name and number
Contents by volume for major pigment and vehicle constituents
Thinning instructions
Application instructions

B. Store materials and equipment as approved by applicable codes and enforce good housekeeping practices. Any soiled or used rags waste, etc., shall be removed from the site every night and every precaution shall be taken to avoid the danger of fire. No paint materials shall be washed or emptied on the site or into any sewer drains, storm drains or street gutters.

## 1.09 Protections

A. Protection Work of other trades, whether to be painted or not, against damage by painting and finishing Work. Provide suitable covering or other methods of protection during progress of this Work. Correct any damage by cleaning, repairing or replacing, and repainting, as acceptable to the Project Inspector.

B. Provide "Wet Paint" signs as required to protect newly painted surfaces. Remove all protective materials upon completion of the Work and touch-up and restore all damaged or defaced surfaces, including the removal of paint spots from other surfaces.

1.10 Guarantee

A. Adhesion: All materials applied shall be guaranteed for a period of two (2) years against failure due to surface conditions, materials, or application. There shall be no evidence of fingerprints blisters, running, peeling, scaling, chalking, streaks or stains.

## PART 2 - PRODUCTS

2.01 Color Schedule

A. Project Inspector shall furnish to the Contractor a color schedule of paints to be used based on one of the approved manufacturer's color charts or requirements for specially mixed colors. Use of one of the other approved manufacturer's requires the Contractor to match the color schedule provided by the Project Inspector.

B. Manufacturers names used to designate colors of color schedule is not intended to imply that products names are required to the exclusion of equivalent products of other manufacturers.

C. All colors and manufacturers shall be approved and authorized by the Project Inspector before commencing Work.

2.02 Materials Quality

A. Provide best quality grade of various types of paints as regularly manufactured by acceptable paint materials manufacturer. Materials not displaying manufacturer's identification as a standard, best-grade product will not be acceptable.

1. Acceptable paint manufacturers include, or approved equal:
   a) Benjamin Moore Company
   b) The Glidden Company
   c) Pratt and Lambert, Inc.
   d) Dunn and Edwards
   e) Sherwin-Williams
   f) W.P. Fuller Company
   g) Tiger Drylac

B. Provide primer and undercoat paint produced by the same manufacturer as finish paint. Use only thinners approved by paint manufacturer, and use only within recommended limits.

2.03 Primer

A. Primer for metal surfaces shall be Red Oxide Primer, conforming to Federal Specification TT-P-31 for metal surfaces and Federal Specification TT-P-64b for galvanized surfaces.

## PART 3 - EXECUTION

3.01 Surface Preparation

A. General: Perform preparation and cleaning procedures in accordance with paint manufacturer's instructions, and as herein specified, for each particular surface condition.

B. Paint no items fitted with finish hardware or other similar items until hardware has been removed or provided with surface-applied protection prior to surface preparation and painting operations. Install hardware or remove surface-applied protection after paint has dried.

C. Metal Surfaces: Clean all metal surfaces, which are not galvanized or shop-painted, of scale, dirt, rust and other deleterious materials before priming. Clean metal in accordance with Steel Structures Painting Council (SSPC) Specifications.

1. SP-2: Hand Tool Cleaning

2. SP-3: Power Tool Cleaning

3. SP-7: Brush-off Blasting Cleaning

Remove oil, grease, and similar contaminants in accordance with:

1. SP-1: Solvent Cleaning

D. Galvanized Surface: Clean all galvanized surfaces of oil and other surface contaminants with a crystalline zinc phosphate pretreatment (phosphoric acid etch). Remove pretreatment solution by thoroughly washing with clean water and wipe dry.

3.02 Materials Preparation

A. Mix and prepare painting materials in accordance with manufacturer's specifications.

B. Stir materials before application to produce a mixture of uniform density, and stir as required during application. Do not stir surface film into materials. Remove film and if necessary, strain materials before using.

3.03 Application of Primer Coat

A. Apply primer coast to all surfaces which are required to be painted or finished, and which have not been prime coated or shop-painted by others. For metal surfaces, tough up shop-painted coats as required.

B. Immediately after surface preparation brush or spray on primer in accordance with manufacturer's instructions at a rate to provide uniform dry film thickness of two (2.0) mils for each coat. Use painting methods which shall result in full coverage of joints, corners, edges and exposed surfaces.

C. All primer coats shall be free from runs, sags, and other defects. All coats shall be thoroughly dry before applying succeeding coats.

D. Apply one (1) coat of metal primer for metal surfaces, as specified and/or as recommended by manufacturer's instructions.

3.04 Application of Paint

A. Apply paint in accordance with manufacturer's instructions. Use applicators and techniques best suited for each surface and type of materials being painted.

B. All painting Work shall be done by skilled workman in a professional manner. All coats shall be evenly spread and shall be free from run, sags and other defects. All coats shall be thoroughly dry before applying succeeding coats.

C. All individual coats of paint shall be inspected and approved by the Project Inspector before application of the succeeding specified coat; otherwise no credit for the coat applied shall be given, and the Applicator shall automatically assume responsibility to recoat the Work. The applicator shall provide the Project Inspector a report of each coat applied when completed for inspection and approval to comply with the above.

D. Where coverage is incomplete, not uniform, or not to the required dry film thickness, provide an additional coat at no extra cost to the Developer.

E. Apply finish coats of paint to all exposed surfaces as follows:

   1. For primed metal surfaces, apply two (2) coats of 100% acrylic latex base paint, per manufacturer's recommendations. Apply first coat of paint within 72 hours of primer application. If first coat of finish paint cannot be applied within the specified application time, the contractor shall re-clean and re-primer all exposed metal surfaces prior to start of metal paining operations.

F. Give special attention to ensure that surfaces, including edges, corners, crevices, welds, and exposed fasteners, receive a dry film thickness equivalent to that of flat surfaces.

G. Apply first-coat material to surfaces that have been cleaned, pretreated or otherwise prepared for painting as soon as practical after preparation and before subsequent surface deterioration's.

H. Allow sufficient time between successive coatings to permit proper drying. Do not recoat until pain has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure, and application of another coat of paint does not cause lifting or loss of adhesion of the undercoat.

I. Apply all coating without reduction, except as specifically required by label directions, or required by this Section.

J. Sand carefully between all coats on smooth surfaces for good adhesion of subsequent coats.

K. Paint all exposed surfaces and anything inaccessible after installation prior to installation, if required to be painted.

**END OF SECTION**