# SECTION 099100

# PAINTING

## PART 1 - GENERAL

### 1.1 SUMMARY

A. This Section includes surface preparation and field painting of exposed exterior and interior items and surfaces.

B. Related Sections:
1. Division 09 Section “Exterior Finish Schedule” for product information not specified in this Section.
2. Division 09 Section “Interior Finish Schedule” for product information not specified in this Section.

### 1.2 SYSTEM DESCRIPTION

A. General: Paint every exterior and interior surface in areas affected by construction activities, or as otherwise indicated.
1. Verify extent of painting with Architect before proceeding.

B. Surfaces Not to be Painted:
1. Factory-finished items specified in various Sections.
2. Prefinished wall, ceiling, and floor coverings.
3. Painting specified elsewhere and included in respective Sections, including but not necessarily limited to, shop priming.
4. Code-Required Labels: Keep equipment identification and fire rating labels free of paint.
5. Surfaces concealed in walls and above ceilings except as specifically indicated otherwise.
6. Ducts, piping, conduit, and equipment concealed in walls and ceilings, unless specifically indicated otherwise.

### 1.3 SUBMITTALS

A. Product Data: For each product indicated.

B. Samples: For each type of paint system and in each color and gloss of topcoat indicated.
1. Submit Samples on rigid backing, 8-1/2 inches by 11 inches.
2. Step coats on Samples to show each coat required for system.
3. Label each coat of each Sample.
4. Label each Sample for location and application area.

### 1.4 QUALITY ASSURANCE

A. Applicators Qualifications: Engage an experienced applicator who has completed painting system applications similar in material and extent.

B. Single Source Responsibility: Provide primers and other undercoat paint produced by same manufacturer as finish coats. Use thinners approved by paint manufacturer, and use within recommended limits.

C. Coordination of Work: Review other Sections in which prime paints are to be provided to ensure compatibility of coatings system for various substrates. Upon request, furnish information or characteristics of finish materials to be used.

D. Requirements of Regulatory Agencies: Comply with applicable rules and regulations of governing agencies for air quality control.
   1. Comply with current applicable regulations of the local air quality district, California Air Resources Board (CARB) and the Environmental Protection Agency (EPA).
   2. Regulatory changes may affect the formulation, availability, or use of specified coatings. Confirm availability of coatings to be used prior to start of painting.
   3. Paint shall comply with Green Seal GS-11 GC-03 and SCAQMD Rule 1113, dated January 1, 2004; http://www.greenseal.org/.

E. Benchmark Samples (Mockups): Provide a full-coat benchmark finish sample for each type of coating and substrate required until required sheen, color and texture is obtained. Comply with procedures specified in PDCA P5. Simulate finished lighting conditions for review of in-place work.
   1. Wall Surfaces: Provide samples on at least 100 sq. ft.
   2. Small Areas and Items: Architect will designate items or areas required.
   3. Final approval of colors will be from benchmark samples.

1.5 PROJECT CONDITIONS

A. Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45 deg F. Maintain storage containers in a clean condition, free of foreign materials and residue.

B. Apply waterborne paints only when temperatures of surfaces to be painted and surrounding air are between 50 and 90 deg F.

C. Do not apply paint in snow, rain, fog, or mist; or when relative humidity exceeds 85 percent; or at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.

1.6 EXTRA MATERIALS

A. Furnish extra paint materials from the same production run as the materials applied and in the quantities described below. Package with protective covering for storage and identify with labels describing contents. Deliver extra materials to Owner.
   1. Quantity: 1 gal. of each material and color applied.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Products of the following manufacturers are listed in other Part 2 articles and use the abbreviated names shown in parentheses:
   1. Benjamin Moore & Co. (Benjamin Moore).
   2. Dunn – Edwards Corporation (Dunn – Edwards).
   3. Frazee Paint Company (Frazee).
   4. ICI Dulux Paint Centers / Glidden Professional (ICI Dulux Paints / Glidden Professional).
   5. Kelly-Moore Paint Co. (Kelly-Moore).

B. Subject to compliance with requirements, provide the named products or comparable products by an accepted equal manufacturer.

2.2 PAINT MATERIALS, GENERAL

A. Material Compatibility: Provide block fillers, primers, and finish-coat materials that are compatible with one another and with the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.

B. Material Quality: Provide manufacturer's top-of-the-line-quality paint material of the various coating types specified that are factory formulated and recommended by manufacturer for application indicated. Paint-material containers not displaying manufacturer's product identification will not be acceptable.

C. Exterior Colors: As specified in Division 09 Section “Exterior Finish Schedule” and indicated on the Drawings.

D. Interior Colors: As specified in Division 09 Section “Interior Finish Schedule” and indicated on the Drawings.

2.3 PREPARATORY COATS

A. Crack Fillers: Factory-formulated acrylic emulsion crack fillers compatible with substrate and finish-coat materials indicated.

B. Exterior Primer: Exterior latex-based primer of finish coat manufacturer and recommended in writing by manufacturer for use with finish coat and on substrate indicated.
   1. Ferrous-Metal and Aluminum Substrates: Rust-inhibitive metal primer.
   2. Zinc-Coated Metal Substrates: Galvanized metal primer.
   3. Where manufacturer does not recommend a separate primer formulation on substrate indicated, use paint specified for finish coat.

C. Interior Primer: Interior latex-based primer of finish coat manufacturer and recommended in writing by manufacturer for use with finish coat and on substrate indicated.
   1. Ferrous-Metal Substrates: Quick drying, rust-inhibitive metal primer.
   2. Zinc-Coated Metal Substrates: Galvanized metal primer.

3. Where manufacturer does not recommend a separate primer formulation on substrate indicated, use paint specified for finish coat.

2.4 EXTERIOR FINISH COATS

A. Exterior Semigloss Acrylic Enamel:
1. Benjamin Moore; Moorcraft Super Spec Latex House & Trim Paint No. 170.
2. Dunn – Edwards; W7500 Spartaglo Interior/Exterior Acrylic Semi-Gloss Paint.
3. ICI Dulux Paints / Glidden Professional; 2406-XXXX Dulux Professional Exterior 100 Percent Acrylic Semi-Gloss Finish.
4. Frazee; 124 Mirro Glide 100 Percent Acrylic Semi-Gloss Enamel.
5. Kelly-Moore; 1250 Acry-Lustre Exterior Semi-Gloss Acrylic Finish.

2.5 INTERIOR FINISH COATS

A. Interior Flat Zero VOC/Low Odor Acrylic Paint:
1. Benjamin Moore; Eco-Spec Flat No. 219.
2. Dunn-Edwards; DEW 601 EcoShield.
3. ICI Dulux Paints / Glidden Professional; LM9100 Lifemaster Flat.
4. Frazee; 018 Envirokote Flat.
5. Kelly-Moore; 1500 Enviro-Cote Flat.

B. Interior Low-Sheen Zero VOC/Low Odor Acrylic Enamel:
1. Benjamin Moore; Eco-Spec Latex Eggshell No. 223.
2. Dunn-Edwards; DEW 602 EcoShield.
3. ICI Dulux Paints / Glidden Professional; LM9300 Lifemaster Eggshell.
4. Frazee; 029 Envirokote Eggshell.
5. Kelly-Moore; 1510 Enviro-Cote Eggshell.

C. Interior Semigloss Zero VOC/Low Odor Acrylic Enamel:
1. Benjamin Moore; Pristine Semi-Gloss No. 224.
2. Dunn-Edwards; DEW 603 EcoShield.
3. ICI Dulux Paints / Glidden Professional; LM9200 Lifemaster Semi-Gloss.
4. Frazee; 032 Envirokote Semi-Gloss.
5. Kelly-Moore; 1520 Enviro-Cote Semi-Gloss.

D. Interior Epoxy Finish:
1. Benjamin Moore; Acrylic Epoxy Gloss "A," Hardener "B;" No. M43/M44.
2. Dunn – Edwards; InterH2O 735 Waterborne Epoxy.
3. ICI Dulux Paints / Glidden Professional; Devoe Coatings Tru Glaze Acrylic Epoxy Coating; No. 4418.
4. Frazee; Ameron Amercoat; No. 335.
5. Kelly-Moore; Envira-Poxy; No. 7100.

E. Interior Non-Bridging Acoustic Finish:
1. Benjamin Moore; Moore's Ceiling White No. 508.
2. Dunn-Edwards; W15 Acoustikote.
3. Frazee; 003 Acoustic Paint.
4. ICI Dulux Paints / Glidden Professional; 1210V Ultra-Hide 150 Interior Flat Paint.
5. Kelly-Moore; 119 Kel Pro.

PART 3 - EXECUTION

3.1 APPLICATION

A. Examine substrates, areas, and conditions, with Applicator present, for compliance with requirements for paint application.

B. Coordination of Work: Review other Sections in which primers are provided to ensure compatibility of the total system for various substrates. On request, furnish information on characteristics of finish materials to ensure use of compatible primers.

C. Remove hardware and hardware accessories, plates, machined surfaces, lighting fixtures, and similar items already installed that are not to be painted. If removal is impractical or impossible because of size or weight of the item, provide surface-applied protection before surface preparation and painting.
   1. After completing painting operations in each space or area, reinstall items removed using workers skilled in the trades involved.

D. Surface Preparation: Clean and prepare surfaces to be painted according to manufacturer's written instructions for each particular substrate condition and as specified.
   1. Provide barrier coats over incompatible primers or remove and reprime.
   2. Cementitious Materials: Remove efflorescence, chalk, dust, dirt, grease, oils, and release agents. Roughen as required to remove glaze. If hardeners or sealers have been used to improve curing, use mechanical methods of surface preparation.
   3. Wood: Clean surfaces of dirt, oil, and other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Sand surfaces exposed to view smooth and dust off.
      a. Scrape and clean small, dry, seasoned knots, and apply a thin coat of white shellac or other recommended knot sealer before applying primer. After priming, fill holes and imperfections in finish surfaces with putty or plastic wood filler. Sand smooth when dried.
      b. Prime or seal wood to be painted immediately on delivery. Prime edges, ends, faces, undersides, and back sides.
   4. Ferrous Metals: Clean ungalvanized ferrous-metal surfaces that have not been shop coated; remove oil, grease, dirt, loose mill scale, and other foreign substances. Use solvent or mechanical cleaning methods that comply with SSPC's recommendations.
      a. Touch up bare areas and shop-applied prime coats that have been damaged. Wire-brush, clean with solvents recommended by paint manufacturer, and touch up with same primer as the shop coat.
   5. Galvanized Surfaces: Clean galvanized surfaces with nonpetroleum-based solvents so surface is free of oil and surface contaminants. Remove pretreatment from galvanized sheet metal fabricated from coil stock by mechanical methods.
   6. Old Work: Sand, wire brush, or scrape painted surfaces to remove loose, scaling paint and to reduce gloss. Wash soiled surfaces.

E. Material Preparation:
   1. Maintain containers used in mixing and applying paint in a clean condition, free of foreign materials and residue.
   2. Stir material before application to produce a mixture of uniform density. Stir as required during application. Do not stir surface film into material. If necessary, remove surface film and strain material before using.

F. Exposed Surfaces: Include areas visible when permanent or built-in fixtures, grilles, convector covers, covers for finned-tube radiation, and similar components are in place. Extend coatings in these areas, as required, to maintain system integrity and provide desired protection.
   1. Paint surfaces behind movable equipment and furniture the same as similar exposed surfaces. Before final installation of equipment, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
   2. Paint interior surfaces of ducts with a flat, nonspecular black paint where visible through registers or grilles.
   3. Paint back sides of access panels and removable or hinged covers to match exposed surfaces.
   4. Finish exterior doors on tops, bottoms, and side edges the same as exterior faces.

G. Scheduling Painting: Apply first coat to surfaces that have been cleaned, pretreated, or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.
   1. Omit primer over metal surfaces that have been shop primed and touchup painted.
   2. If undercoats, stains, or other conditions show through final coat of paint, apply additional coats until paint film is of uniform finish, color, and appearance.

H. Application Procedures: Apply paints and coatings by brush, roller, spray, or other applicators according to manufacturer's written instructions.

I. Minimum Coating Thickness: Apply paint materials no thinner than manufacturer's recommended spreading rate. Provide total dry film thickness of the entire system as recommended by manufacturer.

J. Mechanical and Electrical Work: Painting of mechanical and electrical work is limited to items exposed in equipment rooms and occupied spaces.

K. Block Fillers: Apply block fillers to concrete masonry block at a rate to ensure complete coverage with pores filled.

L. Prime Coats: Before applying finish coats, apply a prime coat, as recommended by manufacturer, to material that is required to be painted or finished and that has not been prime coated by others. Recoat primed and sealed surfaces where evidence of suction spots or unsealed areas in first coat appears, to ensure a finish coat with no burn-through or other defects due to insufficient sealing.

M. Pigmented (Opaque) Finishes: Completely cover surfaces as necessary to provide a smooth, opaque surface of uniform finish, color, appearance, and coverage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections will not be acceptable.

N. Stipple Enamel Finish: Roll and redistribute paint to an even and fine texture. Leave no evidence of rolling, such as laps, irregularity in texture, skid marks, or other surface imperfections.

## 3.2 CLEANING AND PROTECTING

A. At the end of each workday, remove empty cans, rags, rubbish, and other discarded paint materials from Project site.

B. Protect work of other trades, whether being painted or not, against damage from painting. Correct damage by cleaning, repairing or replacing, and repainting, as approved by Architect.

C. Provide "Wet Paint" signs to protect newly painted finishes. After completing painting operations, remove temporary protective wrappings provided by others to protect their work.
   1. After work of other trades is complete, touch up and restore damaged or defaced painted surfaces. Comply with procedures specified in PDCA P1.

## 3.3 WASTE MANAGEMENT

A. Set aside extra paint for future color matches, or reuse by Owner. Where paint recycling is available, collect all waste paint by type and provide for delivery to recycling or collection facility.

B. Close and seal tightly all partly used paint and finish containers and store protected in well-ventilated fire-safe area at moderate temperature.

C. Place empty containers of solvent based paints in areas designated for hazardous materials.

D. Do not dispose of paints or solvents by pouring on the ground. Place in designated containers for proper disposal.

## 3.4 EXTERIOR PAINT SCHEDULE

A. Metal Flashings and Other Miscellaneous Metal:
   1. Ferrous Metal:
      a. Acrylic Finish: Two finish coats over a rust-inhibitive primer.
         1) Primer: Exterior ferrous-metal primer (not required on shop-primed items).
         2) Finish Coats: Exterior semigloss acrylic enamel.
   2. Zinc-Coated Metal:
      a. Acrylic Finish: Two finish coats over a galvanized metal primer.
         1) Primer: Exterior galvanized metal primer.
         2) Finish Coats: Exterior semigloss acrylic enamel.
   3. Aluminum:
      a. Acrylic-Enamel Finish: Two finish coats over a primer.
         1) Primer: Exterior aluminum primer under acrylic finishes.
         2) Finish Coats: Exterior semigloss acrylic enamel.

## 3.5 INTERIOR PAINT SCHEDULE

A. Concrete:
   1. Acrylic Finish: Two finish coats over a primer.
      a. Primer: Interior concrete and masonry zero VOC/low odor primer.
      b. Finish Coats: Interior low-sheen, zero VOC/low odor acrylic enamel.

B. Gypsum Board:
   1. General:
      a. Paint Sheens: As specified in Division 09 Section "Interior Finish Schedule" and indicated on the Drawings.
   2. Walls and Ceilings to receive Flat Finish:
      a. General: Acrylic finish, two finish coats over a primer.
      b. Primer: Interior zero VOC/low odor gypsum board primer.
      c. Finish Coats: Interior flat zero VOC/low odor acrylic paint.
   3. Walls and Ceilings to receive Low-Luster (Eggshell) Finish:
      a. General: Acrylic finish, two finish coats over a primer.
      b. Primer: Interior zero VOC/low odor gypsum board primer.
      c. Finish Coats: Interior low-luster (eggshell) zero VOC/low odor acrylic enamel.
   4. Walls and Ceilings to receive Semi-Gloss Finish:
      a. General: Acrylic finish, two finish coats over a primer.
      b. Primer: Interior zero VOC/low odor gypsum board primer.
      c. Finish Coats: Interior semigloss zero VOC/low odor acrylic enamel.
   5. Walls and Ceilings to receive Epoxy Finish:
      a. General: Epoxy finish, two finish coats over a primer.
      b. Primer: Interior zero VOC/low odor gypsum board primer.
      c. Finish Coats: Interior epoxy finish.

C. Metal Doors and Frames, and Other Miscellaneous Metal:
   1. Ferrous Metal:
      a. Acrylic Finish: Two finish coats over a primer.
         1) Primer: Interior latex-based, ferrous-metal primer.
         2) Finish Coats: Interior semigloss zero VOC/low odor acrylic enamel.
   2. Zinc-Coated Metal:
      a. Acrylic Finish: Two finish coats over a primer.
         1) Primer: Interior latex-based zinc-coated metal primer.
         2) Finish Coats: Interior semigloss zero VOC/low odor acrylic enamel.

D. Wood - Opaque Finish:
   1. Acrylic-Enamel Finish: Two finish coats over a primer.
      a. Primer: Interior zero VOC/low odor wood primer for acrylic-enamel and semigloss alkyd-enamel finishes.
      b. Finish Coats: Interior semigloss zero VOC/low odor acrylic enamel.

E. Existing Acoustical Ceiling Tiles:
   1. Acrylic Finish: Two finish coats over a factory finish.
      a. Finish Coats: Interior non-bridging acoustic finish.

END OF SECTION 099100