

SECTION 099123 - INTERIOR PAINTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes surface preparation and the application of paint systems on interior substrates.

- 1. Wood.
- 2. Gypsum board.
- 3. Plaster.
- 4. Spray-textured ceilings.

- B. Related Requirements:

- 1. Division 06 Sections for shop priming carpentry with primers specified in this Section.
- 2. Division 08 Sections for factory priming doors with primers specified in this Section.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.

1.4 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

- 1. Paint: Five percent, but not less than 1 gal. (3.8 L) of each material and color applied.

1.5 QUALITY ASSURANCE

- A. Mockups: Apply mockups of each paint system indicated and each color and finish selected to verify preliminary selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.

1. Architect will select one surface to represent surfaces and conditions for application of each paint system specified in Part 2.
 - a. Vertical and Horizontal Surfaces: Provide samples of at least 100 sq. ft. (9 sq. m).
 - b. Other Items: Architect will designate items or areas required.
2. Final acceptance of color selections will be based on mockups.
 - a. If preliminary color selections are not acceptable, apply additional mockups of additional colors selected by Architect at no added cost to Owner.
3. Review of mockups does not constitute acceptance of deviations from the Contract Documents contained in mockups unless Architect specifically accepts such deviations in writing.
4. Subject to compliance with requirements, accepted mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F (7 deg C).
 1. Maintain containers in clean condition, free of foreign materials and residue.
 2. Remove rags and waste from storage areas daily.

1.7 FIELD CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F (10 and 35 deg C).
- B. Do not apply paints in snow, rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than 5 deg F (3 deg C) above the dew point; or to damp or wet surfaces.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Basis of Design manufacturer, Subject to compliance with requirements, provide products manufactured by listed manufacturer or comparable products by one of the following:
 1. Benjamin Moore & Co.
 2. Color Wheel Paints & Coatings.
 3. Dunn-Edwards Corporation.
 4. Duron, Inc.
 5. ICI Paints.
 6. Pittsburg Paints (PPG).

7. Sherwin-Williams Company (Basis of Design).

- B. Products: Subject to compliance with requirements, provide Basis of Design product listed in other Part 3 articles for the paint category indicated or equivalent product by manufacturer listed in Article 2.1.A.

2.2 PAINT, GENERAL

- A. MPI Standards: Provide products that comply with MPI standards indicated and that are listed in its "MPI Approved Products List."

B. Material Compatibility:

1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

- C. VOC Content: Products shall comply with VOC limits of authorities having jurisdiction and, for interior paints and coatings applied at Project site, the following VOC limits, exclusive of colorants added to a tint base, when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

1. Flat Paints and Coatings: 50 g/L.
2. Nonflat Paints and Coatings: 150 g/L.
3. Primers, Sealers, and Undercoaters: 200 g/L.
4. Anticorrosive and Antirust Paints Applied to Ferrous Metals: 250 g/L.
5. Zinc-Rich Industrial Maintenance Primers: 340 g/L.
6. Floor Coatings: 100 g/L.

- D. Low-Emitting Materials: Interior paints and coatings shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

- E. Colors: As selected by Architect from manufacturer's full range.

2.3 SOURCE QUALITY CONTROL

- A. Testing of Paint Materials: Owner reserves the right to invoke the following procedure:

1. Owner may engage the services of a qualified testing agency to sample paint materials. Contractor will be notified in advance and may be present when samples are taken. If paint materials have already been delivered to Project site, samples may be taken at Project site. Samples will be identified, sealed, and certified by testing agency.
2. Testing agency will perform tests for compliance with product requirements.

3. Owner may direct Contractor to stop applying coatings if test results show materials being used do not comply with product requirements. Contractor shall remove noncomplying paint materials from Project site, pay for testing, and repaint surfaces painted with rejected materials. Contractor will be required to remove rejected materials from previously painted surfaces if, on repainting with complying materials, the two paints are incompatible.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
 1. Concrete: 12 percent.
 2. Wood: 15 percent.
 3. Gypsum Board: 12 percent.
- C. Gypsum Board Substrates: Verify that finishing compound is sanded smooth.
- D. Spray-Textured Substrates: Verify that surfaces are dry.
- E. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- F. Proceed with coating application only after unsatisfactory conditions have been corrected.
 1. Application of coating indicates acceptance of surfaces and conditions by contractors.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
 1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.
- C. Clean substrates of substances that could impair bond of paints, 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 paint systems indicated.
- D. Concrete Substrates: Remove release agents, curing compounds, efflorescence, and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces to be painted exceeds that permitted in manufacturer's written instructions.
- E. 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.
- F. Aluminum Substrates: Remove loose surface oxidation.
- G. Wood Substrates:
 1. Scrape and clean knots, and apply coat of knot sealer before applying primer.
 2. Sand surfaces that will be exposed to view, and dust off.
 3. Prime edges, ends, faces, undersides, and backsides of wood.
 4. After priming, fill holes and imperfections in the finish surfaces with putty or plastic wood filler. Sand smooth when dried.

3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions and to recommendations in "MPI Manual."
 1. Use applicators and techniques suited for paint and substrate indicated.
 2. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
 3. Paint front and backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
 4. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
 5. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
- B. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Tint undercoats to match color of topcoat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.
- C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

- E. Painting Fire Suppression, Plumbing, HVAC, Electrical, Communication, and Electronic Safety and Security Work:
 - 1. Paint the following work where exposed in equipment rooms and occupied spaces:
 - a. Equipment, including panelboards and switch gear.
 - b. Uninsulated metal piping.
 - c. Uninsulated plastic piping.
 - d. Pipe hangers and supports.
 - e. Metal conduit.
 - f. Plastic conduit.
 - g. Tanks that do not have factory-applied final finishes.
 - h. Duct, equipment, and pipe insulation covering or other paintable jacket material.
 - i. Other items as indicated.
 - 2. Paint portions of internal surfaces of metal ducts, without liner, behind air inlets and outlets that are visible from occupied spaces.

3.4 FIELD QUALITY CONTROL

- A. Dry Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test paint for dry film thickness.
 - 1. Contractor shall touch up and restore painted surfaces damaged by testing.
 - 2. If test results show that dry film thickness of applied paint does not comply with paint manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with paint manufacturer's written recommendations.

3.5 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.6 PAINT SCHEDULE

- A. General: Provide the following paint systems for the various substrates, as indicated.
- B. Concrete:
 - 1. Semi-Gloss Latex Finish: 2 Finish Coats over Primer
 - a. 1st Coat: S-W ProMar 200 Latex Wall Primer, B28W200 applied at minimum 1.2 mils DFT.
 - b. 2nd Coat: S-W ProMar 200 Latex Semi-Gloss Enamel, B31W200 applied at minimum 1.2 mils DFT.
 - c. 3rd Coat: S-W ProMar 200 Latex Semi-Gloss Enamel, B31W200 applied at minimum 1.2 mils DFT.
- C. Gypsum Drywall Systems:
 - 1. Flat Latex Finish: 1 Finish Coat minimum over Primer
 - a. 1st Coat: S-W ProMar 200 Latex Wall Primer, B28W200 applied at minimum 1.4 mils DFT.
 - b. 2nd Coat: S-W ProMar 200 Latex Flat Wall Paint, B30W200 applied at minimum 1.4 mils DFT minimum.
 - c. 3rd Coat: S-W ProMar 200 Latex Flat Wall Paint, B30W200 applied at minimum 1.4 mils DFT. If required to achieve coverage and finished appearance acceptable to Owner.
 - 2. Semi-Gloss Latex Finish: 1 Finish Coat minimum over Primer
 - a. 1st Coat: S-W ProMar 200 Latex Wall Primer, B28W200 applied at minimum 1.2 mils DFT.
 - b. 2nd Coat: S-W ProMar 200 Latex Semi-Gloss, B31W200 Series applied at minimum 1.3 mils DFT minimum.
 - c. 3rd Coat: S-W ProMar 200 Latex Semi-Gloss, B31W200 Series applied at minimum 1.3 mils DFT. If required to achieve coverage and finished appearance acceptable to Owner.
- D. Woodwork:
 - 1. Semi-Gloss Latex Finish: 1 Finish Coat minimum over Primer
 - a. 1st Coat: S-W ProMar 200 Alkyd Enamel Undercoater applied at minimum 1.0 mils DFT.
 - b. 2nd Coat: S-W ProMar 200 Latex Semi-Gloss B31W200 Series applied at minimum 1.5 mils DFT minimum.
 - c. 3rd Coat: S-W ProMar 200 Latex Semi-Gloss B31W200 Series applied at minimum 1.5 mils DFT. If required to achieve coverage and finished appearance acceptable to Owner.
- E. Ferrous Metal:
 - 1. Semi-Gloss Alkyd Finish: 2 Finish Coats over Primer

- a. 1st Coat: S-W Kem Kromik Metal Primer, B50 Series applied at minimum 3.0 mils DFT.
- b. 2nd Coat: S-W ProMar 200 Alkyd Semi-Gloss, B34W200 Series applied at minimum 1.7 mils DFT.
- c. 3rd Coat: S-W ProMar 200 Alkyd Semi-Gloss, B34W200 Series applied at minimum 1.7 mils DFT.

F. Zinc-Coated Material:

1. Semi-Gloss Alkyd Finish: 2 Finish Coats over Primer
 - a. 1st Coat: S-W Galvite Paint, B50W1 applied at minimum 2.0 mils DFT.
 - b. 2nd Coat: S-W ProMar 200 Alkyd Semi-Gloss B34W200 Series applied at minimum 1.7 mils DFT.
 - c. 3rd Coat: S-W ProMar 200 Alkyd Semi-Gloss B34W200 Series applied at minimum 1.7 mils DFT.

END OF SECTION 099123