

SECTION 09912
INTERIOR PAINTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings
- B. Book 1: Project Information, Instructions to Bidders, and Execution Documents
- C. Book 2: Standard Terms and Conditions for Construction Contracts
- D. Book 2A: Standard Terms and Conditions Procedures Manual

1.2 SUMMARY

- A. This Section includes surface preparation and the application of paint systems on the following interior substrates:
 - 1. ~~Precast concrete plank ceiling where indicated.~~
 - 2. Concrete masonry units (CMU).
 - 3. Ferrous metal.
 - 4. Galvanized metal.
 - 5. Gypsum board.
- B. The materials in this Section are part of the overall USGBC "Leadership in Energy and Environmental Design" LEED prerequisites and credits needed for Project to obtain LEED Gold certification based on LEED 2009 requirements. See Section 01352 LEED Requirements and this section for more information.

1.3 DEFINITIONS

- A. Gloss Level 1: Not more than 5 units at 60 degrees and 10 units at 85 degrees, according to ASTM D 523.
- B. Gloss Level 2: Not more than 10 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.
- C. Gloss Level 3: 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.
- D. Gloss Level 4: 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees, according to ASTM D 523.
- E. Gloss Level 5: 35 to 70 units at 60 degrees, according to ASTM D 523.
- F. Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D 523.

- G. Gloss Level 7: More than 85 units at 60 degrees, according to ASTM D 523.

1.4 SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
- B. LEED Submittals:
 - 1. LEED credit EQ 4.2: Submit product data for interior paint installed on site and used inside the weatherproofing system.
 - a. Provide MSDS, VOC content and VOC limit based on LEED requirements in Section 01352.
- C. Samples for Verification: For each type of paint system and in each color and gloss of topcoat.
 - 1. Submit Samples on rigid backing, 8 inches square.
 - 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.
- D. Product List: For each product indicated, include the following:
 - 1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.
 - 2. Printout of current "MPI Approved Products List" for each product category specified in Part 2, with the proposed product highlighted.
 - 3. VOC content.

1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Paint: 5 percent, but not less than 1 gal. of each material and color applied.

1.6 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 3.
 - a. Vertical and Horizontal Surfaces: Provide samples of at least 100 sq. ft.
 - b. Other Items: Architect will designate items or areas required.

2. Final approval of color selections will be based on mockups.
 - a. If preliminary color selections are not approved, apply additional mockups of additional colors selected by Architect at no added cost to Owner.
3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.7 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.
 1. Maintain containers in clean condition, free of foreign materials and residue.
 2. Remove rags and waste from storage areas daily.

1.8 FIELD CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F.
- B. Do not apply paints when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following, unless otherwise specified:
 1. Benjamin Moore & Co.
 2. Akzo Nobel (Glidden Professional, Devco Coatings).
 3. PPG Architectural Finishes, Inc.
 4. Sherwin-Williams Company (The).

2.2 PAINT, GENERAL

- A. 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.
- B. VOC Content of Field-Applied Interior Paints and Coatings: Provide products that comply with the following limits for VOC content, 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. Dry-Fog Coatings: 400 g/L.
 4. Primers, Sealers, and Undercoaters: 200 g/L.
 5. Anticorrosive and Antirust Paints Applied to Ferrous Metals: 250 g/L.
 6. Zinc-Rich Industrial Maintenance Primers: 250 g/L.
 7. Floor Coatings: 100 g/L.
 8. Shellacs, Clear: 730 g/L.
 9. Shellacs, Pigmented: 550 g/L.
 10. See SCAQMD, Rule 1113, Architectural Coatings, <http://www.aqmd.gov/rules/reg/reg11/r1113.pdf>, effective date 1/1/04, or page 483 of the 2009 Edition of the LEED Reference Guide for Green Building Design and Construction for additional paints and coatings.
- C. Colors: As follows, unless otherwise specified:
1. P-1, Color: To match Benjamin Moore, White Wisp OC-54
 2. P-2, Color: To match Benjamin Moore, White I-01.
 3. P-3, Color: To match Sherwin Williams SW 7056 Reserved White.

2.3 BLOCK FILLERS

- A. Block Filler, Latex, Interior/Exterior: MPI #4.
1. Benjamin Moore; Moorcraft Super Spec Satin-filler #172.
 2. Glidden Professional Paints; Bloxfil 4000-1000 Interior/Exterior Heavy Duty Acrylic Block Filler.
 3. Pittsburgh Paints; 6-7 SpeedHide Interior/Exterior Masonry Latex Block Filler.
 4. Sherwin-Williams; PrepRite Interior/Exterior Block Filler B25W25.

2.4 PRIMERS

- A. Interior ~~Concrete and~~ Masonry Primer: Factory-formulated alkali-resistant acrylic-latex interior primer for interior application.
1. Benjamin Moore; Pristine Eco Spec Interior Latex Primer Sealer #231.
 2. Glidden Professional Paints; LM9116 Lifemaster 2000 Primer/Sealer.
 3. Pittsburgh Paints; 9-900 Pure Performance Interior Latex Primer Sealer.
 4. Sherwin-Williams; PrepRite Interior/Exterior Block Filler B25W25.
- B. Interior Gypsum Board Primer: Factory-formulated latex-based primer for interior application: MPI#50.
1. Benjamin Moore; Regal Primer & Underbody N216-00/F216-00.

2. Glidden Professional Paints; LM9116 Lifemaster 2000 Primer/Sealer.
 3. Pittsburgh Paints; Speedhide Int. Latex Primer Sealer 6-2.
 4. Sherwin-Williams; Harmony Interior Latex Primer B11W500.
- C. Interior Ferrous-Metal Primer: Primer, Rust-Inhibitive, Water Based: MPI #107.
1. Benjamin Moore; Super Spec High Performance Acrylic Metal Primer P04/KP04
 2. Rust-Oleum; Bulls Eye 1-2-3 Water-Base Primer 02001
 3. Sherwin-Williams; Industrial & Marine DTM Acrylic Primer/Finish B66W1.
- D. Interior Zinc-Coated Metal Primer: Factory-formulated, water Based galvanized metal primer: MPI #134.
1. ~~ICI Paints~~—Devoe Coatings: Devflex WB DTM Primer Finish, 4020.
 2. Rust-Oleum; Bulls Eye 1-2-3 Water-Base Primer 02001
 3. Sherwin-Williams: Industrial & Marine DTM Acrylic Primer/Finish B66W1

2.5 FINISH COAT ACRYLIC PAINTS

- A. Interior Flat Acrylic Paint (Gloss Level 1): MPI 53.
1. Benjamin Moore; Regal Interior 100% Acrylic Flat Finish W215-01.
 2. Glidden Professional Paints; LM9100 Lifemaster 2000 Interior Flat.
 3. Pittsburgh Paints; 9-100 Series Pure Performance Interior Flat Latex Paint
 4. Sherwin-Williams; Harmony Interior Latex Flat B5W500 series
- A. Latex, Interior, (Gloss Level 2): MPI #44.
1. Benjamin Moore: Aura Waterborne Eggshell Interior Paint 524.
 2. Glidden Professional Paints; LM9300 Lifemaster 2000 Interior Eggshell Finish.
 3. Pittsburgh Paints; 9-300 Series Pure Performance Interior Eggshell Latex Paint
 4. Sherwin-Williams: Harmony Interior Latex Eg-Shel B9W900 B9W500
- B. Interior Low-Luster Acrylic Enamel (Gloss Level 3): MPI #52.
1. Glidden Professional Paints; Regency 100% Acrylic Interior Satin Enamel, RG53XX.
 2. Pittsburgh Paints; Pittsburgh Paints Speedhide Interior Satin Latex 6-3511.
 3. Sherwin-Williams; ProGreen 200 Interior Latex Semi-Gloss B31W00651/B31WQ8651
- C. Interior Semigloss Acrylic Enamel (Gloss Level 5): Factory-formulated semigloss acrylic-latex enamel for interior application. If applied over gypsum board, surface of drywall must be finished with a Level 5 Finishing System.
1. Benjamin Moore; Regal Premium 100% Acrylic Semi-Gloss Finish W333-01
 2. Glidden Professional Paints; LM9200 Lifemaster 2000 Interior Semi-Gloss Finish
 3. Pittsburgh Paints; 9-500 Series Pure Performance Interior Semigloss Latex Paint.
 4. Sherwin-Williams; Harmony Interior Semi-gloss B10W500

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 work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
 - 1. Concrete: ~~12 percent.~~
 - 2. Masonry (CMU): 12 percent.
 - 3. Gypsum Board: 12 percent.
- C. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- D. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry.
 - 1. Beginning coating application constitutes Contractor's acceptance of substrates and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates indicated.
- B. Remove plates, machined surfaces, and similar items already in place that 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.
 - 2. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
- C. Clean substrates of substances that could impair bond of paints, including dirt, oil, grease, and incompatible paints and encapsulants.
 - 1. Remove incompatible primers and reprime substrate with compatible primers 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. Concrete Masonry Substrates: Remove 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.

- F. Steel Substrates: Remove rust and loose mill scale. Clean using methods recommended in writing by paint manufacturer.
- G. Galvanized-Metal Substrates: Remove grease and oil residue from galvanized sheet metal fabricated from coil stock by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints.
- H. Gypsum Board Substrates: Do not begin paint application until finishing compound is dry and sanded smooth.

3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions.
 - 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.
- 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 Mechanical and Electrical Work: Paint items exposed in equipment rooms and occupied spaces including, but not limited to, the following:
 - 1. Mechanical Work:
 - a. Uninsulated metal piping.
 - b. Uninsulated plastic piping.
 - c. Pipe hangers and supports.
 - d. Tanks that do not have factory-applied final finishes.
 - e. Visible portions of internal surfaces of metal ducts, without liner, behind air inlets and outlets.
 - f. Duct, equipment, and pipe insulation having cotton or canvas insulation covering or other paintable jacket material.
 - g. Mechanical equipment that is indicated to have a factory-primed finish for field painting.
 - 2. Electrical Work:
 - a. Switchgear.
 - b. Panelboards.

- c. Electrical equipment that is indicated to have a factory-primed finish for field painting.

3.4 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.

3.5 INTERIOR PAINTING SCHEDULE

- ~~A. Concrete: Provide the following paint systems over interior concrete and brick masonry substrates:
 - ~~1. Semigloss Acrylic Enamel Finish: Two finish coats over a primer.
 - ~~a. Primer: Interior concrete and masonry primer.~~
 - ~~b. Finish Coats: Interior semigloss acrylic enamel.~~~~~~
- B. Concrete Unit Masonry: Provide the following finish systems over interior concrete masonry:
 - 1. Semigloss Acrylic-Enamel Finish: Two finish coats over a block filler.
 - a. Block Filler: Concrete unit masonry block filler.
 - b. Finish Coats: Interior semigloss acrylic enamel.
- C. Gypsum Board: Provide the following finish systems over interior gypsum board surfaces:
 - 1. Flat Acrylic Finish for ceilings: Two finish coats over a primer.
 - a. Primer: Interior gypsum board primer.
 - b. Finish Coats: Interior flat acrylic paint.
 - 2. Low-Luster Acrylic-Enamel Finish for walls: Two finish coats over a primer.
 - a. Primer: Interior gypsum board primer.
 - b. Finish Coats: Interior low-luster acrylic enamel.
- D. Ferrous Metal: Provide the following finish systems over ferrous metal:
 - 1. Semigloss Acrylic-Enamel Finish: Two finish coats over a primer.
 - a. Primer: Interior ferrous-metal primer.
 - b. Finish Coats: Interior semigloss acrylic enamel.

- E. Zinc-Coated Metal: Provide the following finish systems over interior zinc-coated metal surfaces:
 - 1. Semigloss Acrylic-Enamel Finish: Two finish coats over a primer.
 - a. Primer: Interior zinc-coated metal primer.
 - b. Finish Coats: Interior semigloss acrylic enamel.

END OF SECTION 09912