

USDA FOREST SERVICE, R-4  
PROJECT TITLE

## SECTION 099120 - INTERIOR PAINTING

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes surface preparation and the application of paint systems on the following interior substrates:
  - 1. Concrete
  - 2. Concrete masonry units (CMU).
  - 3. Steel.
  - 4. Galvanized metal.
  - 5. Aluminum (not anodized or otherwise coated).
  - 6. Wood.
  - 7. Gypsum board.
  - 8. Plaster.
  - 9. Spray-textured ceilings.

#### 1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Color Selection: For each type of topcoat product indicated.

#### 1.3 QUALITY ASSURANCE

- A. MPI Standards:
  - 1. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List."
  - 2. Preparation and Workmanship: Comply with requirements in "MPI Architectural Painting Specification Manual" for products and paint systems indicated.

#### 1.4 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.

#### 1.5 PROJECT 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.

## 1.6 MEASUREMENT AND PAYMENT

- A. There will be no separate measurement and payment for work included under this section. Payment will be included in the items listed on the Schedule of Items.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  1. Benjamin Moore & Co.
  2. Kwal-Howell Paint.
  3. 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. Colors: Colors shall match existing.

### 2.3 PRIMERS AND SEALERS

- A. Interior Latex Primer/Sealer: MPI #50.
- B. Wood-Knot Sealer: Sealer recommended in writing by topcoat manufacturer for use in paint systems indicated.

### 2.4 LATEX PAINTS

- A. Interior Latex (Flat): MPI #53 (Gloss Level 1).
- B. High-Performance Architectural Latex (Low Sheen): MPI #138 (Gloss Level 2).
- C. High-Performance Architectural Latex (Eggshell): MPI #139 (Gloss Level 3).
- D. High-Performance Architectural Latex (Satin): MPI #140 (Gloss Level 4).
- E. High-Performance Architectural Latex (Semigloss): MPI #141 (Gloss Level 5).

## 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 (Clay and CMU): 12 percent.
  - 3. Wood: 15 percent.
  - 4. Gypsum Board: 12 percent.
  - 5. Plaster: 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 cover plates, wall hangings, 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 and surfaces have dried per manufacturer's instruction, 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. Clay or Concrete Masonry Substrates: Remove efflorescence and chalk. Do not paint surfaces if moisture content of surfaces or alkalinity of surfaces or mortar joints to be painted exceed 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. Aluminum Substrates: Remove surface oxidation.
- I. 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.
- J. Gypsum Board Substrates: Do not begin paint application until finishing compound is dry and sanded smooth.
- K. Plaster Substrates: Do not begin paint application until plaster is fully cured and dry.
- L. Spray-Textured Ceiling Substrates: Do not begin paint application until surfaces are dry.

### 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. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- C. 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.

### 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 Substrates, Nontraffic Surfaces:

- 1. Latex System: MPI INT 3.1E.
  - a. Prime Coat: Interior latex matching topcoat.
  - b. Intermediate Coat: Interior latex matching topcoat.
  - c. Topcoat: Interior latex.
- 2. Latex Over Sealer System: MPI INT 3.1A.
  - a. Prime Coat: Interior latex primer/sealer.
  - b. Intermediate Coat: Interior latex matching topcoat.
  - c. Topcoat: Interior latex.
- 3. Latex Over Latex Aggregate System: MPI INT 3.1B.
  - a. Prime Coat: Latex stucco and masonry textured coating.
  - b. Intermediate Coat: Exterior latex matching topcoat.
  - c. Topcoat: Exterior latex.

#### B. Concrete Substrates, Traffic Surfaces:

- 1. Latex Floor Enamel System: MPI INT 3.2A.
  - a. Prime Coat: Interior/exterior latex floor and porch paint (low gloss).
  - b. Intermediate Coat: Interior/exterior latex floor and porch paint (low gloss).
  - c. Topcoat: Interior/exterior latex floor and porch paint (low gloss).
- 2. Alkyd Floor Enamel System: MPI INT 3.2B.
  - a. Prime Coat: Exterior/interior alkyd floor enamel (gloss).
  - b. Intermediate Coat: Exterior/interior alkyd floor enamel (gloss).
  - c. Topcoat: Exterior/interior alkyd floor enamel (gloss).
- 3. Concrete Stain System: MPI INT 3.2E.
  - a. First Coat: Interior concrete floor stain.

- b. Topcoat: Interior concrete floor stain.
  - 4. Clear Sealer System: MPI INT 3.2F.
    - a. First Coat: Interior/exterior clear concrete floor sealer (solvent based).
    - b. Topcoat: Interior/exterior clear concrete floor sealer (solvent based).
  - 5. Water-Based Clear Sealer System: MPI INT 3.2G.
    - a. First Coat: Interior/exterior clear concrete floor sealer (water based).
    - b. Topcoat: Interior/exterior clear concrete floor sealer (water based).
- C. CMU Substrates:
  - 1. Latex System: MPI INT 4.2A.
    - a. Prime Coat: Interior/exterior latex block filler.
    - b. Intermediate Coat: Interior latex matching topcoat.
    - c. Topcoat: Interior latex.
  - 2. Alkyd System: MPI INT 4.2C.
    - a. Prime Coat: Interior/exterior latex block filler.
    - b. Intermediate Coat: Interior alkyd matching topcoat.
    - c. Topcoat: Interior alkyd.
- D. Steel Substrates:
  - 1. Quick-Drying Enamel System: MPI INT 5.1A.
    - a. Prime Coat: Quick-drying alkyd metal primer.
    - b. Intermediate Coat: Quick-drying enamel matching topcoat.
    - c. Topcoat: Quick-drying enamel.
  - 2. Water-Based Dry-Fall System: MPI INT 5.1C.
    - a. Prime Coat: metal primer.
    - b. Topcoat: Waterborne dry fall.
  - 3. Alkyd Dry-Fall System: MPI INT 5.1D.
    - a. Prime Coat: Quick-drying alkyd metal primer.
    - b. Topcoat: Interior alkyd dry fog/fall.
  - 4. Latex Over Alkyd Primer System: MPI INT 5.1Q.
    - a. Prime Coat: Quick drying alkyd metal primer.
    - b. Intermediate Coat: Interior latex matching topcoat.
    - c. Topcoat: Interior latex
- E. Galvanized-Metal Substrates:
  - 1. Water-Based Dry-Fall System: MPI INT 5.3H.

- a. Prime Coat: Waterborne dry fall.
    - b. Topcoat: Waterborne dry fall.
  - 2. Alkyd Dry-Fall System: MPI INT 5.3F.
    - a. Prime Coat: Cementitious galvanized-metal primer.
    - b. Topcoat: Interior alkyd dry fog/fall.
  - 3. Latex System: MPI INT 5.3A.
    - a. Prime Coat: Cementitious galvanized-metal primer.
    - b. Intermediate Coat: Interior latex matching topcoat.
    - c. Topcoat: Interior latex.
  - 4. Latex Over Waterborne Primer System: MPI INT 5.3J.
    - a. Prime Coat: Waterborne galvanized-metal primer.
    - b. Intermediate Coat: Interior latex matching topcoat.
    - c. Topcoat: Interior latex.
  - 5. Aluminum Paint System: MPI INT 5.3G.
    - a. Prime Coat: Cementitious galvanized-metal primer.
    - b. Intermediate Coat: Aluminum paint.
    - c. Topcoat: Aluminum paint.
- F. Aluminum (Not Anodized or Otherwise Coated) Substrates:
- 1. Latex System: MPI INT 5.4H.
    - a. Prime Coat: Quick-drying primer for aluminum.
    - b. Intermediate Coat: Interior latex matching topcoat.
    - c. Topcoat: Interior latex.
  - 2. Alkyd Over Vinyl Wash Primer System: MPI INT 5.4A.
    - a. Prime Coat: Vinyl wash primer.
    - b. Intermediate Coat: Interior alkyd matching topcoat.
    - c. Topcoat: Interior alkyd.
  - 3. Alkyd Over Quick-Drying Primer System: MPI INT 5.4J.
    - a. Prime Coat: Quick-drying primer for aluminum.
    - b. Intermediate Coat: Interior alkyd matching topcoat.
    - c. Topcoat: Interior alkyd.
  - 4. Aluminum Paint System: MPI INT 5.4D.
    - a. Prime Coat: Vinyl wash primer.
    - b. Intermediate Coat: Aluminum paint.

c. Topcoat: Aluminum paint.

G. Glue-Laminated Beam and Column Substrates:

1. Latex System: MPI INT 6.1M.
  - a. Prime Coat: Interior latex-based wood primer.
  - b. Intermediate Coat: Interior latex matching topcoat.
  - c. Topcoat: Interior latex.
2. Latex Over Alkyd Primer System: MPI INT 6.1A.
  - a. Prime Coat: Interior alkyd primer/sealer.
  - b. Intermediate Coat: Interior latex matching topcoat.
  - c. Topcoat: Interior latex.

H. Gypsum Board Substrates:

1. Latex System: MPI INT 9.2A.
  - a. Prime Coat: Interior latex.
  - b. Intermediate Coat: Interior latex matching topcoat.
  - c. Topcoat: Interior latex match existing
2. Alkyd Over Latex Primer System: MPI INT 9.2C.
  - a. Prime Coat: Interior latex primer/sealer.
  - b. Intermediate Coat: Interior alkyd matching topcoat.
  - c. Topcoat: Interior alkyd match existing.

I. Spray-Textured Ceiling Substrates:

1. Latex (Flat) System: MPI INT 9.1A, spray applied.
  - a. Prime Coat: Interior latex.
  - b. Topcoat: Interior latex match existing.
2. Latex System: MPI INT 9.1E, spray applied.
  - a. Prime Coat: Interior latex matching topcoat.
  - b. Intermediate Coat: Interior latex matching topcoat.
  - c. Topcoat: Interior latex match existing.

END OF SECTION 099120

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