

**SECTION 09 91 23**  
**INTERIOR PAINTING**

**PART 1 GENERAL**

1.1 SECTION INCLUDES

- A. Surface preparation.
  
- B. Field application of paints and varnishes.
- C. Field application of paints.
- D. Scope: Finish interior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated.
  - 1. Mechanical and Electrical:
    - a. In finished areas, paint insulated and exposed pipes, conduit, boxes, insulated and exposed ducts, hangers, brackets, collars and supports, mechanical equipment, and electrical equipment, unless otherwise indicated.
    - b. In finished areas, paint shop-primed items.
- E. Do Not Paint or Finish the Following Items:
  - 1. Items factory-finished unless otherwise indicated; materials and products having factory-applied primers are not considered factory finished.
  - 2. Items indicated to receive other finishes.
  - 3. Items indicated to remain unfinished.
  - 4. Fire rating labels, equipment serial number and capacity labels, bar code labels, and operating parts of equipment.
  - 5. Floors, unless specifically indicated.
  - 6. Glass.
  - 7. Concealed pipes, ducts, and conduits.

1.2 DEFINITIONS

- A. Specular Gloss: Ranges determined per Master Painters Institute (MPI). Sheen is specified to establish required gloss range.

Sheen (GL-#)	Geometry/Deg.	Gloss Range	MPI Gloss Level
1. Satin	60	20 to 35	4
- B. Finish (i.e. GL- # - gloss level) of painted surfaces shall be as specified herein or as noted on Finish Schedule.

1.3 REFERENCE STANDARDS

- A. 40 CFR 59, Subpart D - National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency; current edition.
- B. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2021a.
- C. MPI (APSM) - Master Painters Institute Architectural Painting Specification Manual; Current Edition.
- D. SSPC-SP 1 - Solvent Cleaning; 2015, with Editorial Revision (2016).
- E. SSPC-SP 6 - Commercial Blast Cleaning; 2007.

1.4 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide complete list of products to be used, with the following information for each:

1. Manufacturer's name, product name and/or catalog number, and general product category (e.g., "alkyd enamel").
  2. Cross-reference to specified paint system(s) product is to be used in; include description of each system.
- C. Samples: Submit three paper "draw down" samples, 8-1/2 by 11 inches in size, illustrating range of colors available for each finishing product specified.
1. Where sheen is specified, submit samples in only that sheen.
- 1.5 QUALITY ASSURANCE
- A. Applicator Qualifications: Company specializing in performing the type of work specified with minimum 5 years experience and approved by manufacturer.
- 1.6 DELIVERY, STORAGE, AND HANDLING
- A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
- B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
- C. Paint Materials: Store at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.
- 1.7 FIELD CONDITIONS
- A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
- B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.
- C. Provide lighting level of 80 ft candles measured mid-height at substrate surface.

## **PART 2 PRODUCTS**

- 2.1 MANUFACTURERS
- A. Provide paints and finishes used in any individual system from the same manufacturer; no exceptions.
- B. Paints:
1. Base Manufacturer: Miller Paint Company – Ballard Location only;  
[www.millerpaintpro.com](http://www.millerpaintpro.com).
- C. Primer Sealers: Same manufacturer as top-coats.
- D. NOTE: No substitutions unless otherwise indicated for a specific product; in general a product not available from Miller Paint Company. Non- Miller Paint Company products must be submitted to and specifically approved by Owner.
- 2.2 PAINTS AND FINISHES - GENERAL
- A. Paints and Finishes: Ready-mixed, unless intended to be a field-catalyzed paint.
1. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
  2. Provide materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
  3. Supply each paint material in quantity required to complete entire project's work from a single production run.
  4. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is specifically described in manufacturer's product instructions.

- B. Volatile Organic Compound (VOC) Content:
1. Provide paints and finishes that comply with the most stringent requirements specified in the following:
    - a. 40 CFR 59, Subpart D--National Volatile Organic Compound Emission Standards for Architectural Coatings.
    - b. Ozone Transport Commission (OTC) Model Rule, Architectural, Industrial, and Maintenance Coatings; [www.otcair.org](http://www.otcair.org); specifically:
      - 1) Opaque, Flat: 50 g/L, maximum.
      - 2) Opaque, Nonflat: 150 g/L, maximum.
      - 3) Opaque, High Gloss: 250 g/L, maximum.
      - 4) Anti-corrosive Coatings: 250 g/L, maximum.
      - 5) Varnishes: 350 g/L, maximum.
      - 6) Stains: 250 g/L, maximum.
  2. Determination of VOC Content: Testing and calculation in accordance with 40 CFR 59, Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.
- C. Flammability: Comply with applicable code for surface burning characteristics.
- D. Sheens: As indicated on drawings take precedence over sheens noted in this Section.
- E. Colors: As indicated on drawings take precedence over sheens noted in this Section.
- F. Refer to Schedule in Part 3 of this section for paint application locations.

## 2.3 PAINT SYSTEMS - INTERIOR

- A. Interior Surfaces to be Painted, Unless Otherwise Indicated: Including gypsum board.
1. Two top coats and one coat primer.
  2. Top Coat(s): Interior Latex.
    - a. Primer Products: Latex, Primer.
      - 1) Miller Paint: Premium PVA Primer.
    - b. Paint Products for Walls: Acrylic Latex, GL-3
      - 1) Miller Paint: Acro Pure Ultra-Low VOC Interior Satin 110-4-XX.
    - c. Paint Products for Ceilings: Acrylic Latex, GL-3
      - 1) Miller Paint: Acro Pure Ultra-Low VOC Interior Satin 110-4-XX.
- B. Top Coat(s): Institutional Low Odor/VOC Interior Latex; Wood.
1. Primer Products: for Acrylic-Enamel and Semigloss Alkyd-Enamel Finishes:
    - a. Miller Paint Miller Prime Acrylic Enamel Undercoat 270-0-11.
  2. Paint Products: Acrylic Latex, GL-3
    - a. Miller Paint: Acro Pure Ultra-Low VOC Interior Satin 110-4-XX.
- C. Top Coat(s): Institutional Low Odor/VOC Interior Latex; Metal.
1. Primer Products: Latex primer, rust-inhibitive.
    - a. Miller Paint: Acrimetal DTM Int/Ext Primer/Finish 310-5-XX.
  2. Paint Products: Acrylic Latex, GL-3
    - a. Miller Paint: Acrinamel Interior Satin 310-4-XX.
- D. Medium Metal Duty Door/Trim: For surfaces subject to frequent contact by occupants, including metals and frames:
1. Medium duty applications include doors, door frames, railings, handrails, and guardrails.
  2. Two top coats and one coat primer.
  3. Interior; Acrylic Enamel.
    - a. Primer Products: Latex primer, rust-inhibitive.
      - 1) Miller Paint: Acrimetal DTM Int/Ext Primer/Finish Semi-Gloss 310-5-10.
    - b. Paint Products: Acrylic Enamel - GL-3.
      - 1) Miller Paint: Acrinamel Int/Ext Acrylic Satin 310-4-XX.

- E. Transparent Finish on Wood, Clear Class A Fire Retardant Varnish.
  - 1. 2 top coats, no stain.
  - 2. Fire-Resistive Coating System: Water-based, asbestos-free, factory-mixed thin film intumescent coating system with smooth and uniform finish texture.
  - 3. Thickness: Dry mil thickness in accordance with acceptable test data for substrate.
  - 4. Surface Burning Characteristics, when tested in accordance with 1, Class A:
    - a. Flame Spread Index: 25, maximum.
    - b. Smoke Developed Index: 50, maximum.
  - 5. Product(s):
    - a. Basis of Design: Universal Fire Shield LLC; Product FireKote 100: [www.firechemicals.com](http://www.firechemicals.com).
    - b. Fire Retardants, Inc.; Product Burn Barrier 166 Clear A - Fire Retardant Intumescent Varnish: [www.fireretardentsinc.com](http://www.fireretardentsinc.com).
    - c. RDR Technologies; Product FX Flame Guard Clear Top Coat Fire Retardant: [www.fireoff.com](http://www.fireoff.com).
    - d. Substitutions: See Section 01 60 00 - Product Requirements.

#### 2.4 ACCESSORY MATERIALS

- A. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials as required for final completion of painted surfaces.
- B. Patching Material: Latex filler.
- C. Fastener Head Cover Material: Latex filler.

### PART 3 EXECUTION

#### 3.1 EXAMINATION

- A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
- C. Test shop-applied primer for compatibility with subsequent cover materials.
- D. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces is below the following maximums:
  - 1. Gypsum Wallboard: 12 percent.
  - 2. Concrete Floors and Traffic Surfaces: 8 percent.

#### 3.2 PREPARATION

- A. Clean surfaces thoroughly and correct defects prior to application.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces or finishing.
- D. Seal surfaces that might cause bleed through or staining of topcoat.
- E. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.
- F. Concrete:
  - 1. Remove release agents, curing compounds, efflorescence, and chalk. Do not coat surfaces if moisture content or alkalinity of surfaces to be coated exceeds that permitted in manufacturer's written instructions.
- G. Masonry:

- 1. Remove efflorescence and chalk. Do not coat surfaces if moisture content, alkalinity of surfaces, or if alkalinity of mortar joints exceed that permitted in manufacturer's written instructions. Allow to dry.
- H. Concrete Floors and Traffic Surfaces: Remove contamination, acid etch and rinse floors with clear water. Verify required acid-alkali balance is achieved. Allow to dry.
- I. Gypsum Board: Fill minor defects with filler compound. Spot prime defects after repair.
- J. Galvanized Surfaces:
  - 1. Remove surface contamination and oils and wash with solvent according to SSPC-SP 1.
- K. Ferrous Metal:
  - 1. Solvent clean according to SSPC-SP 1.
  - 2. Remove rust, loose mill scale, and other foreign substances using methods recommended in writing by paint manufacturer and blast cleaning according to SSPC-SP 6 "Commercial Blast Cleaning". Protect from corrosion until coated.
- L. Wood Doors to be Field-Finished: Seal wood door top and bottom edge surfaces with clear sealer.

### 3.3 APPLICATION

- A. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.
- B. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".
- C. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- D. Apply each coat to uniform appearance in thicknesses specified by manufacturer.
- E. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
- F. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

### 3.4 FIELD QUALITY CONTROL

- A. See Section 01 40 00 - Quality Requirements, for general requirements for field inspection.
- B. Owner will provide field inspection.

### 3.5 CLEANING

- A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

### 3.6 PROTECTION

- A. Protect finishes until completion of the project.
- B. Touch-up damaged finished after Substantial Completion.

### 3.7 SCHEDULE - PAINT SYSTEMS

- A. Paint Application locations.

Manufacturer	Paint Layer	Paint Type	Finish	Application Location
Miller Paint	Primer	Premium PVA Primer	N/A	All Drywall **Except, at locations with an enamel undercoat

Miller Paint	Topcoat	Acrinamel	Satin	Patient Rooms Toilet Rooms Shower Rooms Operating Rooms Doors Door jambs / Door frames
Miller Paint	Topcoat	Acro-Pure	Satin	Hallways Office Spaces

**END OF SECTION**