

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.

1.3 ACTION SUBMITTALS

- A. 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. VOC content.

1.4 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. (3.8 L) of each material and color applied.

1.5 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.

1.6 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 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:** Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. [Behr Process Corporation.](#)
2. [Benjamin Moore & Co.](#)
3. [Benjamin Moore & Co. \(Canada\).](#)
4. [Bennette Paint Manufacturing Company, Inc.](#)
5. [Betonel Ltd.](#)
6. [BLP Mobile Paint Manufacturing.](#)
7. [California Paints.](#)
8. [Cloverdale Paint.](#)
9. [Color Wheel Paints & Coatings.](#)
10. [Columbia Paint & Coatings.](#)
11. [Conco Paints.](#)
12. [Coronado Paint.](#)
13. [Davis Paint Company.](#)
14. [Diamond Vogel Paints.](#)
15. [Dunn-Edwards Corporation.](#)
16. [Durant Performance Coatings.](#)
17. [Duron, Inc.](#)
18. [Envirocoatings Canada Inc.](#)
19. [Euclid Chemical Company.](#)
20. [Farrell-Calhoun.](#)
21. [Frazee Paint.](#)
22. [General Paint.](#)
23. [Hallman Lindsay Paints.](#)
24. [Hirshfield's, Inc.](#)
25. [ICI Paints.](#)
26. [ICI Paints \(Canada\).](#)
27. [Insl-x.](#)
28. [Kelly-Moore Paints.](#)
29. [Kwal Paint.](#)
30. [M.A.B. Paints.](#)
31. [McCormick Paints.](#)
32. [Microblend Technologies Inc.](#)
33. [Miller Paint.](#)
34. [Mills Paint.](#)
35. [PARA Paints.](#)
36. [Parex LaHabra Inc.](#)
37. [Parker Paint Mfg. Co. Inc.](#)
38. [PPG Architectural Finishes, Inc.](#)
39. [Pratt & Lambert.](#)

40. [Rodda Paint Co.](#)
41. [Scott Paint.](#)
42. [Sherwin-Williams Company \(The\).](#)
43. [Sico, Inc.](#)
44. [Southern Diversified Products, LLC.](#)
45. [Smith Paint Products.](#)
46. [Vista Paint.](#)
47. [Zinsser.](#)

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: 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. 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: 340 g/L.
7. Pretreatment Wash Primers: 420 g/L.
8. Floor Coatings: 100 g/L.
9. Shellacs, Clear: 730 g/L.
10. Shellacs, Pigmented: 550 g/L.

C. 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."

D. Colors: Match existing adjacent finishes.

2.3 SOURCE QUALITY CONTROL

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

1. Owner will 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. Masonry (Clay and CMU): 12 percent.
 3. Wood: 15 percent.
 4. Gypsum Board: 12 percent.
 5. Plaster: 12 percent.
- C. Gypsum Board Substrates: Verify that finishing compound is sanded smooth.
- D. Plaster Substrates: Verify that plaster is fully cured.
- E. Spray-Textured Ceiling Substrates: Verify that surfaces are dry.
- F. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- G. Proceed with coating application only after unsatisfactory conditions have been corrected.
 1. Application of coating indicates acceptance of surfaces and conditions.

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. Masonry Substrates: Remove efflorescence and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces or mortar joints exceed that permitted in manufacturer's written instructions.
- F. Steel Substrates: Remove rust, loose mill scale, and shop primer, if any. Clean using methods recommended in writing by paint manufacturer but not less than the following:
1. SSPC-SP 2, "Hand Tool Cleaning."
 2. SSPC-SP 3, "Power Tool Cleaning."
- G. 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.
- H. 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.
- I. Aluminum Substrates: Remove loose surface oxidation.
- J. 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.
- K. Cotton or Canvas Insulation Covering Substrates: Remove dust, dirt, and other foreign material that might impair bond of paints to substrates.

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 occupied spaces:
 - a. Equipment, including panelboards.
 - b. Uninsulated metal piping.
 - c. Uninsulated plastic piping.
 - d. Pipe hangers and supports.
 - e. Metal conduit.
 - f. Plastic conduit.
 - g. Duct, equipment, and pipe insulation having cotton or canvas insulation covering or other paintable jacket material.
 - h. Other items as directed by Engineer.
 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 Engineer, 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 INTERIOR PAINTING SCHEDULE

A. Concrete Substrates, Nontraffic Surfaces:

- 1. Latex System:
 - a. Prime Coat: Primer sealer, latex, interior, MPI #50.
 - b. Topcoat: Latex, interior, (Gloss Level 4), MPI #43.
- 2. Latex over Latex Aggregate System:
 - a. Prime Coat: Textured coating, latex, flat, MPI #42.
 - b. Topcoat: Latex, interior, (Gloss Level 4), MPI #43.
- 3. Institutional Low-Odor/VOC Latex System:
 - a. Prime Coat: Primer sealer, interior, institutional low odor/VOC, MPI #149.
 - b. Topcoat: Latex, interior, institutional low odor/VOC, (Gloss Level 3), MPI #145.
- 4. High-Performance Architectural Latex System:
 - a. Prime Coat: Primer, alkali resistant, water based, MPI #3.
 - b. Topcoat: Latex, interior, high performance Architectural, (Gloss Level 4), MPI #140.
- 5. Water-Based Light Industrial Coating System:
 - a. Prime Coat: Primer, alkali resistant, water based, MPI #3.
 - b. Topcoat: Light industrial coating, interior, water based (Gloss Level 3), MPI #151.
- 6. Alkyd System:
 - a. Prime Coat: Primer, alkali resistant, water based, MPI #3.
 - b. Topcoat: Alkyd, interior, (Gloss Level 3), MPI #51.

B. Concrete Substrates, Traffic Surfaces:

1. Latex Floor Enamel System:
 - a. Prime Coat: Floor paint, latex, low gloss (maximum Gloss Level 3), MPI #60.
 - b. Intermediate Coat: Floor paint, latex, low gloss (maximum Gloss Level 3), MPI #60.
 - c. Topcoat: Floor paint, latex, low gloss (maximum Gloss Level 3), MPI #60.
 2. Alkyd Floor Enamel System:
 - a. Prime Coat: Floor enamel, alkyd, gloss (Gloss Level 6), MPI #27.
 - b. Intermediate Coat: Floor enamel, alkyd, gloss (Gloss Level 6), MPI #27.
 - c. Topcoat: Floor enamel, alkyd, gloss (Gloss Level 6), MPI #27.
 3. Concrete Stain System:
 - a. First Coat: Stain, interior, for concrete floors, MPI #58.
 - b. Topcoat: Stain, interior, for concrete floors, MPI #58.
 4. Solvent-Based Clear Sealer System:
 - a. First Coat: Sealer, solvent based, for concrete floors, MPI #104.
 - b. Topcoat: Sealer, solvent based, for concrete floors, MPI #104.
- C. Clay-Masonry Substrates:
1. Latex System:
 - a. Prime Coat: Latex, interior, matching topcoat.
 - b. Topcoat: Latex, interior, (Gloss Level 4), MPI #43.
 2. Institutional Low-Odor/VOC Latex System:
 - a. Prime Coat: Primer sealer, interior, institutional low odor/VOC, MPI #149.
 - b. Topcoat: Latex, interior, institutional low odor/VOC, (Gloss Level 3), MPI #145.
 3. Alkyd System:
 - a. Prime Coat: Primer sealer, latex, interior, MPI #50.
 - b. Topcoat: Alkyd, interior, (Gloss Level 3), MPI #51.
- D. CMU Substrates:
1. Latex System:
 - a. Block Filler: Block filler, latex, interior/exterior, MPI #4.
 - b. Topcoat: Latex, interior, (Gloss Level 4), MPI #43.
 2. Institutional Low-Odor/VOC Latex System:
 - a. Block Filler: Block filler, latex, interior/exterior, MPI #4.
 - b. Topcoat: Latex, interior, institutional low odor/VOC, (Gloss Level 3), MPI #145.

3. Alkyd System:
 - a. Block Filler: Block filler, latex, interior/exterior, MPI #4.
 - b. Sealer Coat: Primer sealer, latex, interior, MPI #50.
 - c. Topcoat: Alkyd, interior, (Gloss Level 3), MPI #51.
- E. Steel Substrates:
 1. Latex over Alkyd Primer System:
 - a. Prime Coat: Primer, alkyd, anti-corrosive, for metal, MPI #79 or primer, alkyd, quick dry, for metal, MPI #76.
 - b. Topcoat: Latex, interior, (Gloss Level 4), MPI #43.
 2. Institutional Low-Odor/VOC Latex System:
 - a. Prime Coat: Primer, rust-inhibitive, water based MPI #107.
 - b. Topcoat: Latex, interior, institutional low odor/VOC, (Gloss Level 3), MPI #145.
 3. Alkyd System:
 - a. Prime Coat: Primer, alkyd, anti-corrosive, for metal, MPI #79 or primer, alkyd, quick dry, for metal, MPI #76.
 - b. Topcoat: Alkyd, interior, (Gloss Level 3), MPI #51.
- F. Gypsum Board Substrates:
 1. Institutional Low-Odor/VOC Latex System:
 - a. Prime Coat: Primer sealer, interior, institutional low odor/VOC, MPI #149.
 - b. Topcoat: Latex, interior, institutional low odor/VOC, (Gloss Level 3), MPI #145.
 2. Water-Based Light Industrial Coating System:
 - a. Prime Coat: Primer sealer, latex, interior, MPI #50.
 - b. Topcoat: Light industrial coating, interior, water based (Gloss Level 3), MPI #151.

END OF SECTION 099123