

PAINTING

GENERAL INFORMATION

- 1.1 This Section includes surface preparation and the application of base coats, intermediate and topcoats.

DESIGN REQUIREMENTS

2.1 Material Compatibility:

- a. 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.
- b. 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. Colors: Match Columbia University's samples. Use standard, easy to replicate colors where appropriate. Custom colors will be subject to approval by CU Facilities.

2.2 Base Coats (B):

- a. Urethane Metal Primer: Rust-inhibitive, moisture-cured, aluminum pigmented urethane primer compatible with both conventional and catalyzed coatings, 50% (min.) solids by volume.
- b. Polyamide-Epoxy Primer: Two-part, polyamide-epoxy coating, 50% minimum solids by volume.
- c. Vinyl-Acrylic Latex Primer-Sealer: 30% minimum solids by volume.
- d. Alkyd Wood Primer: Interior/exterior grade alkyd undercoater, 50% minimum solids by volume.
- e. Latex Block Filler: One-part, vinyl-acrylic latex, 45% minimum solids by volume.
- f. Waterborne Polyamide Epoxy: Two-part, waterborne polyamide epoxy coating, 30% minimum solids by volume.

2.3 Latex Intermediate (I) and Top (T) Coats:

DESIGN REQUIREMENTS

- a. Vinyl-Acrylic Latex Flat: 35% minimum solids by volume.
- b. Vinyl-Acrylic Latex Eggshell: 35% minimum solids by volume.

2.4 Alkyd Intermediate (I) and Top (T) Coats:

- a. Modified Alkyd (One-Coat): Rust-inhibitive, self-priming, eggshell-finish spray coating, 65% minimum solids by volume.
- b. Alkyd Semi-Gloss Enamel: 40% minimum solids by volume.

2.5 High Performance Coatings:

- a. Polyamide-Epoxy: Two-part, semi-gloss, polyamide-epoxy coating, 50% minimum solids by volume.
- b. Polyamide-Epoxy Floor Coat: Two-part, self-priming, gloss, polyamide-epoxy coating with high resistance to water, oil, grease, chemicals, and abrasion, 60% minimum solids by volume.
- c. Acrylic-Epoxy Gloss: Two-part, water-based acrylic-epoxy coating, 70 to 80 (60 degree) specular gloss, 40% minimum solids by volume.
- d. Aliphatic Acrylic Polyurethane: Two-part, acrylic aliphatic polyurethane, 70% minimum solids by volume.
- e. Modified Epoxy Masonry Texture Coating: Freeze-thaw-resistant, UV-resistant, high-build dampproofing coating with sand texture finish, 50% minimum solids by volume.

2.6 Auxiliary Materials (compatible with and approved by paint coatings manufacturers), including:

- a. Orange Shellac: ASTM D237 Type I.
- b. Surfacer (Spackling Compound): Finely ground, grit-free when dry, and shall set with no shrinkage to a smooth, hard white surface that sands easily and forms a suitable substrate for required coatings.
- c. Barrier Coat: Type and thickness recommended for each condition by the manufacturer of coatings to be applied. It shall seal and bond to the existing coating and provide good bond for the next coating.

- 2.7.1 Submittals: Product data and samples for each product, color and texture specified.
- 2.8 Quality Assurance: MPI (Master Painters Institute) Standards: Comply with MPI standards and "MPI Approved Products List."

CONSTRUCTION REQUIREMENTS

- 3.1 Examination: Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of work.
- 3.2 Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
- a. Concrete: 12 percent.
 - b. Masonry (Clay and CMU): 12 percent.
 - c. Wood: 15 percent.
 - d. Plaster: 12 percent.
 - e. Gypsum Board: 12 percent.
- 3.3 Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- 3.4 Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry. Beginning coating application constitutes Contractor's acceptance of substrates and conditions.
- 3.5 Preparation and Application:
- a. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates and paint systems indicated.

DESIGN REQUIREMENTS

- b. Clean substrates of substances that could impair bond of paints, including dirt, oil, grease, and incompatible paints and encapsulants. Remove incompatible primers and reprime substrate with compatible primers as required to produce paint systems indicated.
- 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.
- d. 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 University, and leave in an undamaged condition.
- e. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.6 Interior Painting Schedule:

a. EXPOSED STRUCTURAL STEEL AND GALVANIZED STEEL DECK

(B) Modified Alkyd (One-Coat) Flat @ 3.5 DMT.

b. STEEL DOORS AND FRAMES, HANDRAILS AND GUARDRAILS

(B) Urethane Metal Primer @ 2.0 DMT.

(I) Alkyd Semi-Gloss Enamel @ 2.5 DMT.

(T) Alkyd Semi-Gloss Enamel @ 2.5 DMT.

c. OTHER FERROUS METAL

(B) Urethane Metal Primer @ 2.0 DMT on bare surfaces. Polyamide-Epoxy Primer @ 0.3 DMT on galvanized and zinc-rich primed surfaces.

(I) Alkyd Semi-Gloss Enamel @ 2.5 DMT.

(T) Alkyd Semi-Gloss Enamel @ 2.5 DMT Topcoat: Interior/exterior clear concrete floor sealer (water based).

d. CONCRETE TRAFFIC SURFACES

(B) Polyamide-Epoxy Floor Coat @ 2.0 DMT.

(T) Polyamide-Epoxy Floor Coat @ 2.0 DMT.

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e. CONCRETE WALLS

(B) Latex Primer-Sealer @ 2.0 DMT.

(I) Alkyd Semi-Gloss Enamel @ 2.0 DMT.

(T) Alkyd Semi-Gloss Enamel @ 2.0 DMT

f. MASONRY

(B) Latex Block Filler at 80-100 SFG.

(I) Alkyd Semi-Gloss Enamel @ 2.0 DMT.

(T) Alkyd Semi-Gloss Enamel @ 2.0 DMT.

g. EXPOSED GALVANIZED STEEL DUCTS

(B) Vinyl-Acrylic Latex Flat @ 2.0 DMT.

(T) Vinyl-Acrylic Latex Flat @ 2.0 DMT.

h. GYPSUM BOARD WALL/CEILING SURFACES: TOILET ROOMS, JANITOR'S CLOSETS

(B) Vinyl-Acrylic Latex Primer-Sealer @ 2.0 DMT.

(I) Alkyd Semi-Gloss Enamel @ 2.0 DMT.

(T) Alkyd Semi-Gloss Enamel @ 2.0 DMT.

i. GYPSUM BOARD WALL SURFACES: OTHER SPACES

(B) Vinyl-Acrylic Latex Primer-Sealer @ 2.0 DMT.

(I) Vinyl-Acrylic Latex Eggshell @ 2.0 DMT.

(T) Vinyl-Acrylic Latex Eggshell @ 2.0 DMT.

j. GYPSUM BOARD CEILING SURFACES: OTHER SPACES

(B) Vinyl-Acrylic Latex Primer-Sealer @ 2.0 DMT.

(I) Vinyl-Acrylic Latex Flat @ 2.0 DMT.

(T) Vinyl-Acrylic Latex Flat @ 2.0 DMT.

3.7 Exterior Painting Schedule:

a. FERROUS METAL

DESIGN REQUIREMENTS

(B) Urethane Metal Primer @ 2.0 DMT.

(I) Polyamide-Epoxy Enamel @ 4.0 DMT.

(T) Acrylic-Polyurethane Semi-gloss Enamel @ 3.0 DMT.

b. GALVANIZED & NON-FERROUS METAL

(B) Polyamide-Epoxy Primer @ 3.0 DMT.

(T) Acrylic-Polyurethane Semi-gloss Enamel @ 3.0 DMT.

c. CONCRETE MASONRY

(B) Modified Epoxy masonry Texture Coating @ 8 DMT.

REFERENCE

4.1 The applicable CSI Specification Section is 09 90 00.