



SECTION 09900

PAINTS AND COATINGS

Display hidden notes to specifier by using "Tools"/"Options"/"View"/"Hidden Text".

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Surface preparation and field painting of exposed interior items and surfaces.
- B. Surface preparation and field painting of exposed exterior items and surfaces.
- C. Surface preparation and field application of interior high-performance coating systems to items and surfaces scheduled.
- D. Surface preparation and field application of exterior high-performance coating systems to items and surfaces scheduled.
- E. Painting of exposed bare and covered pipes and ducts, hangers, exposed steel and iron supports, and surfaces of mechanical and electrical equipment that do not have a factory-applied final finish.

1.2 RELATED SECTIONS

- A. Section 03300 - Concrete: Surface coordination and curing provisions.
- B. Section 05120 – Structural Steel: Shop priming structural steel.
- C. Section 05500 – Metal Fabrications: Shop priming ferrous metal.
- D. Section 06200 - Finish Carpentry: Shop priming architectural woodwork.
- E. Section 08110 - Steel Doors and Frames: Factory priming steel doors and frames.
- F. Section 09260 - Gypsum Board Assemblies: Surface preparation of gypsum board.
- G. Section 15050 - Basic Mechanical Materials and Methods: Mechanical identification.
- H. Section 16050 - Basic Electrical Materials and Methods: Mechanical identification.

1.3 REFERENCES

- A. American Society for Testing and Materials (ASTM) D 16 - Standard Terminology for Paint, Related Coatings, Materials, and Applications.
- B. Steel Structures Painting Council (SSPC) SP6 - Commercial Blast Cleaning

Procedures.

- C. Steel Structures Painting Council (SSPC) SP10 - Near White Blast Cleaning Procedure.

1.4 DEFINITIONS

- A. General: Standard coating terms defined in ASTM D 16.
 - 1. Flat refers to a lusterless or matte finish with a gloss range below 15 when measured at an 85-degree meter.
 - 2. Eggshell refers to low-sheen finish with a gloss range between 20 and 35 when measured at a 60-degree meter.
 - 3. Semi-gloss refers to medium-sheen finish with a gloss range between 35 and 70 when measured at a 60-degree meter.
 - 4. Full gloss refers to high-sheen finish with a gloss range more than 70 when measured at a 60-degree meter.
- B. Environments: The following terms distinguish between different corrosive exposures:
 - 1. "Severe environments" are highly corrosive industrial atmospheres with sustained exposure to high humidity and condensation and with frequent cleaning using strong chemicals. Environments with heavy concentrations of strong chemical fumes and frequent splashing and spilling of harsh chemical products are severe environments.
 - 2. "Moderate environments" are corrosive industrial atmospheres with intermittent exposure to high humidity and condensation, occasional mold and mildew development, and regular cleaning with strong chemicals. Environments with exposure to heavy concentrations of chemical fumes and occasional splashing and spilling of chemical products are moderate environments.
 - 3. "Mild environments" are industrial atmospheres with normal exposure to moderate humidity and condensation, occasional mold and mildew development, and infrequent cleaning with strong chemicals. Environments with low levels of mild chemical fumes and occasional splashing and spilling of chemical products are mild environments. Normal outdoor weathering is also considered a mild environment.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. [Product Data]: For each paint system indicated, including:
 - 1. Material List: An inclusive list of required coating materials. Indicate each material and cross-reference specific coating, finish system, and application. Identify each material by manufacturer's catalog number and general classification.
 - 2. Preparation instructions and recommendations.
 - 3. Manufacturer's Information: Manufacturer's technical information, including label analysis and instructions for handling, storing, and applying each coating material.
- C. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- D. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: A firm or individual experienced in applying paints and coatings similar in material, design, and extent to those indicated for this Project, whose work has resulted in applications with a record of successful in-service performance.
- B. Obtain block fillers and primers for each coating system from the same manufacturer as the finish coats.
- C. Paint exposed surfaces. If an item or a surface is not specifically mentioned, paint the item or surface the same as similar adjacent materials or surfaces. If a color of finish is not indicated, Architect will select from standard colors and finishes available.
- D. Do not paint prefinished items, concealed surfaces, finished metal surfaces, operating parts, and labels.
- E. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Finish areas designated by Architect.
 - 2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
 - 3. Refinish mock-up area as required to produce acceptable work.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label:
- B. Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45 deg F (7 deg C). Maintain storage containers in a clean condition, free of foreign materials and residue.

1.8 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
- B. Apply waterborne paints only when temperatures of surfaces to be painted and surrounding air are between 50 and 90 deg F (10 and 32 deg C).
- C. Apply solvent-thinned paints only when temperatures of surfaces to be painted and surrounding air are between 45 and 95 deg F (7 and 35 deg C).
- D. Do not apply paint in snow, rain, fog, or mist; or when relative humidity exceeds 85 percent; or at temperatures less than 5 deg F (3 deg C) above the dew point; or to damp or wet surfaces.
 - 1. Painting may continue during inclement weather if surfaces and areas to be painted are enclosed and heated within temperature limits specified by manufacturer during application and drying periods.

1.9 EXTRA MATERIALS

- A. Furnish extra paint materials from the same production run as the materials applied and in the quantities described below. Package with protective covering for storage and identify with labels describing contents. Deliver extra materials to Owner.
- B. Quantity: Furnish Owner with an additional three percent, but not less than 1 gal (3.8 l) or 1 case, as appropriate, of each material and color applied.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: PPG/Porter Paints: 400 South 13th. Street, Louisville, KY 40203. ASD. Tel: (502) 588-9200.
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 PAINT MATERIALS - GENERAL

- A. Material Compatibility: Provide block fillers, primers, and finish-coat materials that are compatible with one another and with the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
- B. VOC Classification: Provide high-performance coating materials, including primers, undercoats, and finish-coat materials, that have a VOC classification of 450 g/l or less.
- C. Color: Refer to Finish Schedule and Paint Legend for paint colors.

2.3 EXTERIOR PAINT SYSTEMS

- A. Concrete, Stucco, and Masonry (Other Than Concrete Unit Masonry): Provide the following finish systems over exterior concrete, stucco, and brick masonry substrates:
 - 1. Acrylic Finish: Two finish coats over a primer.
 - a. Primer: PPG/Porter Paints: PP335 Acri-Pro 100 Exterior Acrylic Primer: Applied at a dry film thickness of not less than 1.2 mils (0.031 mm).
 - b. Exterior flat acrylic finish: PPG/Porter Paints: PP929 Series Acri-Pro 100 Acrylic Exterior Flat House Paint: Applied at a dry film thickness of not less than 1.4 mils (0.036 mm).
 - c. Exterior low-luster acrylic finish: PPG/Porter Paints: PP3729 Series Acri-Pro 100 Exterior Acrylic Satin House Paint: Applied at a dry film thickness of not less than 1.3 mil (0.033 mm).
 - d. Exterior semi-gloss acrylic enamel finish: PPG/Porter Paints: PP6029 Series Acri-Pro 100 Exterior Acrylic Semi Gloss House Paint: Applied at a dry film thickness of not less than 1.2 mils (0.031 mm).
 - e. Exterior full-gloss acrylic enamel finish: PPG/Porter Paints: PP619 Series Acri-Shield Exterior Acrylic Gloss House Paint: Applied at a dry film thickness of not less than 1.5 mils (0.038 mm).
- B. Concrete Unit Masonry: Provide the following finish systems over exterior concrete unit masonry:

1. Acrylic Finish: Two finish coats over a block filler.
 - a. Block Filler: PPG/Porter Paints: PP6223 Pro-Master 2000 Interior/Exterior Masonry Latex Block Filler: Applied at a dry film thickness of not less than 6.0 to 12.5 mils (0.152 to 0.318 mm).
 - b. Exterior flat acrylic finish: PPG/Porter Paints: PP929 Series Acri-Pro 100 Acrylic Exterior Flat House Paint: Applied at a dry film thickness of not less than 1.4 mils (0.036 mm).
 - c. Exterior low-luster acrylic finish: PPG/Porter Paints: PP3729 Series Acri-Pro 100 Exterior Acrylic Satin House Paint: Applied at a dry film thickness of not less than 1.3 mil (0.033 mm).
 - d. Exterior semi-gloss acrylic enamel finish: PPG/Porter Paints: PP6029 Series Acri-Pro 100 Exterior Acrylic Semi Gloss House Paint: Applied at a dry film thickness of not less than 1.2 mils (0.031 mm).
 - e. Exterior full-gloss acrylic enamel finish: PPG/Porter Paints: PP619 Series Acri-Shield Exterior Acrylic Gloss House Paint: Applied at a dry film thickness of not less than 1.5 mils (0.038 mm).

- C. Mineral-Fiber-Reinforced Cement Panels: Provide the following finish systems over exterior, mineral-fiber-reinforced cement panels:
 1. Acrylic Finish: Two finish coats over a primer.
 - a. Primer: PPG/Porter Paints: PP335 Acri-Pro 100 Exterior Acrylic Primer. Applied at a dry film thickness of not less than 1.2 mils (0.031 mm).
 - b. Exterior flat acrylic finish: PPG/Porter Paints: PP929 Series Acri-Pro 100 Acrylic Exterior Flat House Paint: Applied at a dry film thickness of not less than 1.4 mils (0.036 mm).

- D. Exterior Gypsum Soffit Board: Provide the following finish systems over exterior gypsum soffit board:
 1. Acrylic Finish: Two finish coats over an exterior alkyd- or alkali-resistant primer.
 - a. Primer: PPG/Porter Paints: PP335 Acri-Pro 100 Exterior Acrylic Primer: Applied at a dry film thickness of not less than 1.2 mils (0.031 mm).
 - b. Exterior flat acrylic finish: PPG/Porter Paints: PP929 Series Acri-Pro 100 Acrylic Exterior Flat House Paint: Applied at a dry film thickness of not less than 1.4 mils (0.036 mm).
 - c. Exterior low-luster acrylic finish: PPG/Porter Paints: PP3729 Series Acri-Pro 100 Exterior Acrylic Satin House Paint: Applied at a dry film thickness of not less than 1.3 mil (0.033 mm).
 - d. Exterior semi-gloss acrylic enamel finish: PPG/Porter Paints: PP6029 Series Acri-Pro 100 Exterior Acrylic Semi-Gloss House Paint: Applied at a dry film thickness of not less than 1.2 mils (0.031 mm).
 - e. Exterior full-gloss acrylic enamel finish: PPG/Porter Paints: PP619 Series Acri-Shield Exterior Acrylic Gloss House Paint: Applied at a dry film thickness of not less than 1.5 mils (0.038 mm).

- E. Smooth Wood: Provide the following finish systems over smooth wood siding, wood trim, and other smooth exterior wood surfaces:
 1. Acrylic Finish: Two finish coats over a primer.
 - a. Primer: PPG/Porter Paints: PP335 Acri-Pro 100 Exterior Acrylic Primer. Applied at a dry film thickness of not less than 1.2 mils (0.031 mm).
 - b. Exterior flat acrylic finish: PPG/Porter Paints: PP929 Series Acri-Pro 100 Acrylic Exterior Flat House Paint: Applied at a dry film thickness of not less than 1.4 mils (0.036 mm).
 - c. Exterior low-luster acrylic finish: PPG/Porter Paints: PP3729 Series Acri-Pro 100 Exterior Acrylic Satin House Paint: Applied at a dry film

- I. Zinc-Coated Metal: Provide the following finish systems over exterior zinc-coated metal surfaces:
1. Low-Luster Finish: Two finish coats over a galvanized metal primer.
 - a. Primer: PPG/Porter Paints: PP212/215 Porter Guard DTM Interior/Exterior Acrylic Primer Finish: Applied at a dry film thickness of not less than 3.0 mils (0.076 mm).
 - b. Exterior low-luster acrylic paint finish: PPG/Porter Paints: PP3729 Series Acri-Pro 100 Exterior Acrylic Satin House Paint: Applied at a dry film thickness of not less than 1.3 mil (0.033 mm).
 2. Acrylic-Enamel Finish: Two finish coats over a galvanized metal primer.
 - a. Primer: PPG/Porter Paints: PP212/215 Porter Guard DTM Interior/Exterior Acrylic Primer Finish: Applied at a dry film thickness of not less than 3.0 mils (0.076 mm).
 - b. Exterior semi-gloss acrylic enamel finish: PPG/Porter Paints: PP6029 Series Acri-Pro 100 Exterior Acrylic Semi Gloss House Paint: Applied at a dry film thickness of not less than 1.2 mils (0.031 mm).
 - c. Exterior full-gloss acrylic enamel finish: PPG/Porter Paints: PP619 Series Acri-Shield Exterior Acrylic Gloss House Paint: Applied at a dry film thickness of not less than 1.5 mils (0.038 mm).
 3. Full-Gloss Alkyd–Enamel Finish: Two finish coats over a galvanized metal primer.
 - a. Primer: PPG/Porter Paints: PP212/215 Porter Guard DTM Interior/Exterior Acrylic Primer Finish: Applied at a dry film thickness of not less than 3.0 mils (0.076 mm).
 - b. Exterior full-gloss alkyd enamel finish; PPG/Porter Paints: PP4139 Glyptex Urethane Gloss-Oil Interior/Exterior Enamel: Applied at a dry film thickness of not less than 1.4 mils (0.036 mm).
- J. Aluminum: Provide the following finish systems over exterior aluminum surfaces:
1. Acrylic-Enamel Finish: Two finish coats over a primer.
 - a. Primer: PPG/Porter Paints: 272/276 Porter Guard Alkyd Metal Primer: Applied at a dry film thickness of not less than 2.0 mils (0.051 mm).
 - b. Exterior semi-gloss acrylic enamel finish: PPG/Porter Paints: PP6029 Series Acri-Pro 100 Exterior Acrylic Semi-Gloss House Paint: Applied at a dry film thickness of not less than 1.2 mils (0.030 mm).
 - c. Exterior full-gloss acrylic enamel finish: PPG/ Porter Paints: PP619 Series Acri-Shield Exterior Acrylic Gloss House Paint: Applied at a dry film thickness of not less than 1.5 mils (0.038 mm).
 - d. Exterior full-gloss alkyd enamel finish: PPG/Porter Paints: PP4139 Glyptex Urethane Gloss-Oil Interior/Exterior Enamel: Applied at a dry film thickness of not less than 1.4 mils (0.036 mm).

2.4 INTERIOR PAINT SYSTEMS

- A. Concrete and Masonry (Other Than Concrete Unit Masonry): Provide the following paint systems over interior concrete and brick masonry substrates:
1. Acrylic Finish: Two finish coats over a primer.
 - a. Primer: PPG/Porter Paints: PP867 Pro-Master 2000 Interior Acrylic Latex Primer Sealer. Applied at a dry film thickness of not less than 1.1 mils (0.031 mm).
 - b. Interior flat acrylic finish: PPG/Porter Paints: PP6109 Pro-Master 2000 Interior Flat Latex Wall Paint: Applied at a dry film thickness of not less than 1.3 mil (0.033 mm).
 - c. Interior low-luster acrylic enamel finish: PPG/Porter Paints: PP6129 Pro-Master 2000 Interior Eggshell Acrylic Latex Enamel: Applied at a

- d. dry film thickness of not less than 1.4 mils (0.036 mm).
Interior satin acrylic enamel finish: PPG/Porter Paints: PP379 Hi-Hide Interior Satin Latex Enamel: Applied at a dry film thickness of not less than 1.2 mil (0.031 mm).
 - e. Interior semi-gloss acrylic enamel: PPG/Porter Paints: PP6139 Pro-Master 2000 Interior Semi-Gloss Latex Enamel: Applied at a dry film thickness of not less than 1.5 mil (0.038 mm).
 - f. Interior semi-gloss alkyd enamel finish: PPG/Porter Paints: PP149 Pro-Master 2000 Interior Alkyd Semi-Gloss Enamel: Applied at a dry film thickness of not less than 1.6 mils (0.040 mm).
- B. Concrete Unit Masonry: Provide the following finish systems over interior concrete masonry:
- 1. Acrylic Finish: Two finish coats over a block filler.
 - a. Block Filler: Block Filler: PPG/Porter Paints: PP6223 Pro-Master 2000 Interior/Exterior Masonry Latex Block Filler: Applied at a dry film thickness of not less than 6.0 to 12.5 mils (0.152 to 0.318 mm).
 - b. Interior flat acrylic finish: PPG/Porter Paints: PP6109 Pro-Master 2000 Interior Flat Latex Wall Paint: Applied at a dry film thickness of not less than 1.3 mil (0.033 mm).
 - c. Interior low-luster acrylic enamel finish: PPG/Porter Paints: PP6129 Pro-Master 2000 Interior Eggshell Acrylic Latex Enamel: Applied at a dry film thickness of not less than 1.4 mils (0.036 mm).
 - d. Interior satin acrylic enamel finish: PPG/Porter Paints: PP379 Hi-Hide Interior Satin Latex Enamel: Applied at a dry film thickness of not less than 1.2 mil (0.031 mm).
 - e. Interior semi-gloss acrylic enamel: PPG/Porter Paints: PP6139 Pro-Master 2000 Interior Semi-Gloss Latex Enamel: Applied at a dry film thickness of not less than 1.5 mil (0.038 mm).
 - f. Interior semi-gloss alkyd enamel finish: PPG/Porter Paints: PP149 Pro-Master 2000 Interior Alkyd Semi-Gloss Enamel: Applied at a dry film thickness of not less than 1.6 mils (0.040 mm).
- C. Mineral-Fiber-Reinforced Cement Panels: Provide the following finish systems over interior mineral-fiber-reinforced cement panels:
- 1. Flat Acrylic Finish: Two finish coats.
 - a. Primer: PPG/Porter Paints: PP867 Pro-Master 2000 Interior Acrylic Latex Primer Sealer: Applied at a dry film thickness of not less than 1.1 mils (0.031 mm).
 - b. Interior flat acrylic finish: PPG/Porter Paints: PP6109 Pro-Master 2000 Interior Flat Latex Wall Paint: Applied at a dry film thickness of not less than 1.3 mil (0.033 mm).
- D. Gypsum Board: Provide the following finish systems over interior gypsum board surfaces:
- 1. Acrylic Finish: Two finish coats over a primer.
 - a. Primer: PPG/Porter Paints: PP867 Pro-Master 2000 Interior Acrylic Latex Primer Sealer: Applied at a dry film thickness of not less than 1.1 mils (0.031 mm).
 - b. Interior flat acrylic finish: PPG/Porter Paints: PP6109 Pro-Master 2000 Interior Flat Latex Wall Paint: Applied at a dry film thickness of not less than 1.3 mil (0.033 mm).
 - c. Interior low-luster acrylic enamel finish: PPG/ Porter Paints: PP6129 Pro-Master 2000 Interior Eggshell Acrylic Latex Enamel: Applied at a dry film thickness of not less than 1.4 mils (0.036 mm).
 - d. Interior semi-gloss acrylic enamel: PPG/Porter Paints: PP6139 Pro-

- c. Interior low-luster acrylic enamel finish: PPG/Porter Paints: PP6129 Pro-Master 2000 Interior Eggshell Acrylic Latex Enamel: Applied at a dry film thickness of not less than 1.4 mils (0.036 mm).
 - d. Interior satin acrylic enamel finish: PPG/ Porter Paints: PP379 Hi-Hide Interior Satin Latex Enamel: Applied at a dry film thickness of not less than 1.2 mil (0.031 mm).
 - e. Interior semi-gloss acrylic enamel: PPG/Porter Paints: PP6139 Pro-Master 2000 Interior Semi-Gloss Latex Enamel: Applied at a dry film thickness of not less than 1.5 mil (0.038 mm).
 - f. Interior semi-gloss alkyd enamel finish: PPG/Porter Paints: PP149 Pro-Master 2000 Interior Alkyd Semi-Gloss Enamel: Applied at a dry film thickness of not less than 1.6 mils (0.040 mm).
 - g. Interior full-gloss alkyd enamel Low odor: PPG/Porter Paints: PP4139 Glyptex Urethane Gloss-Oil Interior/Exterior Enamel: Applied at a dry film thickness of not less than 1.4 mils (0.036 mm).
 - h. Interior full-gloss acrylic enamel finish: PPG/Porter Paints: PP6149 Pro-Master 2000 Interior Acrylic Gloss Enamels: Applied at a dry film thickness of not less than 1.5 mil (0.038 mm).
- J. All-Service Jacket over Insulation: Provide the following finish system on cotton or canvas insulation covering:
- 1. Flat Acrylic Finish: Two finish coats. Add fungicidal agent to render fabric mildew proof.
 - a. Finish Coats: PPG/Porter Paints: PP6109 Pro-Master 2000 Interior Flat Latex Wall Paint: Applied at a dry film thickness of not less than 1.3 mil (0.033 mm).

2.5 INTERIOR STAIN AND NATURAL-FINISH WOODWORK SYSTEMS

- A. Stained Woodwork: Provide the following stained finishes over new interior woodwork:
- 1. Alkyd-Based Stain Satin-Varnish Finish: Two finish coats of alkyd-based clear satin varnish over a sealer coat and interior wood stain. Wipe wood filler before applying stain.
 - a. Filler Coat: Open-grain wood filler.
 - b. Stain Coat: PPG/Porter Paints: PP300-305 Wood Guardian Interior Semi-Transparent Oil Stain.
 - c. Sealer Coat: PPG/Porter Paints: PP310 Wood Guardian Interior Quick Drying Sanding Sealer.
 - d. Finish Coats: PPG/Porter Paints: PP312 Wood Guardian Interior Satin Clear Varnish.
 - 2. Waterborne Stain Satin-Varnish Finish: Two finish coats of waterborne clear satin varnish over a sealer coat and waterborne interior wood stain. Wipe wood filler before applying stain.
 - a. Filler Coat: Open-grain wood filler.
 - b. Stain Coat: PPG/ Porter Paints: PP300-305 Wood Guardian Interior Semi-Transparent Oil Stain.
 - c. Sealer Coat: PPG/Porter Paints: Olympic 41061 Interior Water Based Sanding Sealer.
 - d. Finish Coats: PPG/Porter Paints: Olympic 42786 Interior Water Based Satin Polyurethane Finish.
 - 3. Waterborne Stain Full-Gloss Varnish Finish: Two finish coats of waterborne clear full-gloss varnish over a sealer coat and interior wood stain. Wipe filler before applying stain.
 - a. Filler Coat: Open-grain wood filler.

- b. Stain Coat: PPG/Porter Paints: PP300-305 Wood Guardian Interior Semi-Transparent Oil Stain.
 - c. Sealer Coat: PPG/Porter Paints: Olympic 41061 Interior Water Based Sanding Sealer.
 - d. Finish Coats: PPG/Porter Paints: Olympic 42784 Interior Water Based Gloss Polyurethane Finish.
 - 4. Alkyd-Based Stain Wax-Polished Finish: Three finish coats of paste wax over a sealer coat and alkyd-based interior wood stain.
 - a. Stain Coat: PPG/Porter Paints: PP300-305 Wood Guardian Interior Semi-Transparent Oil Stain.
 - b. Sealer Coat: PPG/Porter Paints: PP310 Wood Guardian Interior Quick Drying Sanding Sealer.
 - c. Finish Coats: Paste wax.
- B. Natural-Finish Woodwork: Provide the following natural finishes over new interior woodwork:
 - 1. Alkyd-Based Satin-Varnish Finish: Two finish coats of alkyd-based clear satin varnish over a sanding sealer. Provide wood filler on open-grain wood before applying first varnish coat.
 - a. Filler Coat: Open-grain wood filler.
 - b. Sealer Coat: PPG/Porter Paints: PP310 Wood Guardian Interior Quick Drying Sanding Sealer.
 - c. Finish Coats: PPG/Porter Paints: PP312 Wood Guardian Interior Satin Clear Varnish.
 - 2. Waterborne Satin-Varnish Finish: Two finish coats of waterborne clear satin varnish over a sanding sealer. Wipe wood filler before applying stain.
 - a. Filler Coat: Open-grain wood filler.
 - b. Sealer Coat: PPG/Porter Paints: Olympic 41061 Interior Water Based Sanding Sealer.
 - c. Finish Coats: PPG/Porter Paints: Olympic 42786 Interior Water Based Satin Polyurethane Finish.
 - 3. Waterborne Full-Gloss Varnish Finish: [Two] <Insert number> finish coats of waterborne clear full-gloss varnish over a sealer coat. Wipe filler before applying stain.
 - a. Filler Coat: Open-grain wood filler.
 - b. Sealer Coat: PPG/Porter Paints: Olympic 41061 Interior Water Based Sanding Sealer.
 - c. Finish Coats: PPG/Porter Paints: Olympic 42784 Interior Water Based Gloss Polyurethane Finish.
 - 4. Wax-Polished Finish: Three finish coats of paste wax over a sanding-sealer first coat.
 - a. Sealer Coat: PPG/Porter Paints: PP310 Wood Guardian Interior Quick Drying Sanding Sealer.
 - b. Finish Coats: Paste wax.

2.6 EXTERIOR HIGH PERFORMANCE COATING SYSTEMS

- A. Concrete and Masonry (Other Than Concrete Masonry Units): Provide the following finish systems over exterior concrete and brick masonry surfaces:
 - 1. Severe Environments (High-Gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Epoxy primer.
 - 1) PPG: 97-145 Series Pitt-Guard DTR Polyamide Epoxy Coating.
 - b. Intermediate Coat: Aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils.

- 1) PPG: 95-812 Series Pitthane Ultra Gloss Urethane Enamel.
 - c. Topcoat: High-gloss, aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils.
 - 1) PPG: 95-812 Series Pitthane Ultra Gloss Urethane Enamel
- 2. Severe Environments (Semi-gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Epoxy primer/sealer.
 - 1) PPG: 97-145 Series Pitt-Guard D-T-R Polyamide Epoxy.
 - b. Intermediate Coat: Aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 5.0 mils.
 - 1) PPG: 95-8800 Series Pitthane High Build Semi-Gloss Urethane Enamel.
 - c. Topcoat: Semi-gloss, aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 5.0 mils.
 - 1) PPG: 95-8800 Series Pitthane High Build Semi-Gloss Urethane Enamel.
- 3. Moderate Environments (High-Gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Epoxy primer.
 - 1) PPG: 97-145 Series Pitt-Guard DTR Polyamide Epoxy Coating.
 - b. Intermediate Coat: Aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils.
 - 1) PPG: 95-812 Series Pitthane Ultra Gloss Urethane Enamel.
 - c. Topcoat: High-gloss, aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils.
 - 1) PPG: 95-812 Series Pitthane Ultra Gloss Urethane Enamel
- 4. Moderate Environments (Semi-gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Epoxy primer/sealer.
 - 1) PPG: 97-145 Series Pitt-Guard D-T-R Polyamide Epoxy.
 - b. Intermediate Coat: Aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 5.0 mils.
 - 1) PPG: 95-8800 Series Pitthane High Build Semi-Gloss Urethane Enamel.
 - c. Topcoat: Semi-gloss, aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 5.0 mils.
 - 1) PPG: 95-8800 Series Pitthane High Build Semi-Gloss Urethane Enamel.
- 5. Mild Environment (High-Gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Acrylic primer applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 1.2 to 1.5 mils.
 - b. Primer: PPG: 4-603 Perma-Crete Interior/Exterior Alkali Resistant Primer. Applied at a dry film thickness of not less than 1.2 mils (0.030 mm).
 - c. Intermediate Coat: Acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils.
 - 1) PPG/Porter Paints: PP2909 Series Porter Guard Interior/Exterior

- 2.0 to 3.0 mils.
 - 1) PPG: 95-812 Series Pitthane Ultra Gloss Urethane Enamel.
- c. Topcoat: High-gloss, aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils.
 - 1) PPG: 95-812 Series Pitthane Ultra Gloss Urethane Enamel.
- 4. Moderate Environments (Semi-gloss Finish): One finish coat over an intermediate coat and a block filler.
 - a. Block Filler: Epoxy block filler.
 - 1) PPG: 97-685 Series Aquapon Polyamide-Epoxy Block Filler.
 - b. Intermediate Coat: Aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 5.0 mils.
 - 1) PPG: 95-8800 Series Pitthane High Build Semi-Gloss Urethane Enamel.
 - c. Topcoat: Semi-gloss, aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 5.0 mils.
 - 1) PPG: 95-8800 Series Pitthane High Build Semi-Gloss Urethane Enamel.
- 5. Mild Environment (High-Gloss Finish): One finish coat over an intermediate coat and a block filler.
 - a. Block Filler: Acrylic block filler.
 - 1) PPG/Porter Paints: PP896 Acri-Fil High Performance Interior/ Exterior 100% Acrylic Block Filler.
 - b. Intermediate Coat: Acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils.
 - 1) PPG/Porter Paints: PP2909 Series Porter Guard Interior/Exterior DTM Waterborne Gloss Acrylic Enamel.
 - c. Topcoat: High-gloss acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils.
 - 1) PPG/Porter Paints: PP2909 Series Porter Guard Interior/Exterior DTM Waterborne Gloss Acrylic Enamel.
- 6. Mild Environment (Semi-gloss Finish): One finish coat over an intermediate coat and a block filler.
 - a. Block Filler: Acrylic block filler.
 - 1) PPG/Porter Paints: PP896 Acri-Fil High Performance Interior/ Exterior 100% Acrylic Block Filler.
 - b. Intermediate Coat: Acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils.
 - 1) PPG/Porter Paints: PP2809 Series Porter Guard Interior/Exterior DTM Waterborne Satin Acrylic Enamel.
 - c. Topcoat: Semi-gloss acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils.
 - 1) PPG/Porter Paints: PP2809 Series Porter Guard Interior/Exterior DTM Waterborne Satin Acrylic Enamel.
- C. Wood: Provide the following finish systems over exterior wood surfaces:
 - 1. Mild Environment (High-Gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Acrylic primer.
 - 1) PPG/Porter Paints: PP335 Acri-Pro 100 Exterior Acrylic Primer.

Applied at a dry film thickness of not less than 1.2 mils (0.031 mm).

- b. Intermediate Coat: Acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils.
 - 1) PPG/Porter Paints: PP2909 Series Porter Guard Interior/Exterior DTM Waterborne Gloss Acrylic Enamel.
 - c. Topcoat: High-gloss acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils.
 - 1) PPG/Porter Paints: PP2909 Series Porter Guard Interior/Exterior DTM Waterborne Gloss Acrylic Enamel.
2. Mild Environment (Semi-gloss Finish): One finish coat over an intermediate coat and a primer.
- a. Primer: Acrylic primer.
 - 1) PPG/Porter Paints: PP335 Acri-Pro 100 Exterior Acrylic Primer. Applied at a dry film thickness of not less than 1.2 mils (0.031 mm).
 - b. Intermediate Coat: Acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils.
 - 1) PPG/Porter Paints: PP2809 Series Porter Guard Interior/Exterior DTM Waterborne Satin Acrylic Enamel.
 - c. Topcoat: Acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils.
 - 1) PPG/Porter Paints: PP2809 Series Porter Guard Interior/Exterior DTM Waterborne Satin Acrylic Enamel.
- D. Ferrous Metal: Provide the following finish systems over exterior ferrous-metal surfaces:
- 1. Severe Environment (High-Gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Epoxy primer.
 - 1) PPG: 97-145 Series Pitt-Guard DTR Polyamide Epoxy Coating.
 - b. Intermediate Coat: Aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils.
 - 1) PPG: 95-812 Series Pitthane Ultra Gloss Urethane Enamel.
 - c. Topcoat: Aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils.
 - 1) PPG: 95-812 Series Pitthane Ultra Gloss Urethane Enamel.
 - 2. Severe Environment (Semi-gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Epoxy primer.
 - 1) PPG: 97-145 Series Pitt-Guard DTR Polyamide Epoxy Coating.
 - b. Intermediate Coat: Aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 5.0 mils.
 - 1) PPG: 95-8800 Series Pitthane High Build Semi-Gloss Urethane Enamel.
 - c. Topcoat: Aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 5.0 mils.
 - 1) PPG: 95-8800 Series Pitthane High Build Semi-Gloss Urethane Enamel.

3. Moderate Environment (High-Gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Epoxy primer.
 - 1) PPG: 97-145 Series Pitt-Guard DTR Polyamide Epoxy Coating.
 - b. Intermediate Coat: Aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG: 95-812 Series Pitthane Ultra Gloss Urethane Enamel.
 - c. Topcoat: Aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG: 95-812 Series Pitthane Ultra Gloss Urethane Enamel.
4. Moderate Environment (Semi-gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Epoxy primer.
 - 1) PPG: 97-145 Series Pitt-Guard DTR Polyamide Epoxy Coating.
 - b. Intermediate Coat: Aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 5.0 mils
 - 1) PPG: 95-8800 Series Pitthane High Build Semi-Gloss Urethane Enamel.
 - c. Topcoat: Aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 5.0 mils
 - 1) PPG: 95-8800 Series Pitthane High Build Semi-Gloss Urethane Enamel.
5. Mild Environment (High-Gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Acrylic primer.
 - 1) PPG/Porter Paints: PP212/215 Porter Guard DTM Interior/Exterior Acrylic Primer Finish: Applied at a dry film thickness of not less than 3.0 mils (0.076 mm).
 - b. Intermediate Coat: Acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG/Porter Paints: PP2909 Series Porter Guard Interior/Exterior DTM Waterborne Gloss Acrylic Enamel.
 - c. Topcoat: High-gloss acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG/Porter Paints: PP2909 Series Porter Guard Interior/Exterior DTM Waterborne Gloss Acrylic Enamel.
6. Mild Environment (Semi-gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Acrylic primer.
 - 1) PPG/Porter Paints: PP212/215 Porter Guard DTM Interior/Exterior Acrylic Primer Finish: Applied at a dry film thickness of not less than 3.0 mils (0.076 mm).
 - b. Intermediate Coat: Semi-gloss acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG/Porter Paints: PP2809 Series Porter Guard Interior/Exterior DTM Waterborne Satin Acrylic Enamel.
 - c. Topcoat: Semi-gloss acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils

- 1) PPG/Porter Paints: PP2809 Series Porter Guard Interior/Exterior DTM Waterborne Satin Acrylic Enamel.

E. Nonferrous Metal: Provide the following finish systems over exterior nonferrous-metal surfaces:

1. Severe Environment (High-Gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Epoxy primer.
 - 1) PPG: 97-145 Series Pitt-Guard DTR Polyamide Epoxy Coating.
 - b. Intermediate Coat: Aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG: 95-812 Series Pitthane Ultra Gloss Urethane Enamel.
 - c. Topcoat: Aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG: 95-812 Series Pitthane Ultra Gloss Urethane Enamel.
2. Severe Environment (Semi-gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Epoxy primer.
 - 1) PPG: 97-145 Series Pitt-Guard DTR Polyamide Epoxy Coating.
 - b. Intermediate Coat: Aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 5.0 mils
 - 1) PPG: 95-8800 Series Pitthane High Build Semi-Gloss Urethane Enamel.
 - c. Topcoat: Aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 5.0 mils
 - 1) PPG: 95-8800 Series Pitthane High Build Semi-Gloss Urethane Enamel.
3. Moderate Environment (High-Gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Epoxy primer.
 - 1) PPG: 97-145 Series Pitt-Guard DTR Polyamide Epoxy.
 - b. Intermediate Coat: Aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG: 95-812 Series Pitthane Ultra Gloss Urethane Enamel.
 - c. Topcoat: Aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG: 95-812 Series Pitthane Ultra Gloss Urethane Enamel.
4. Moderate Environment (Semi-gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Epoxy primer.
 - 1) PPG: 97-145 Series Pitt-Guard DTR Polyamide Epoxy Coating.
 - b. Intermediate Coat: Aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 5.0 mils
 - 1) PPG: 95-8800 Series Pitthane High Build Semi-Gloss Urethane Enamel.
 - c. Topcoat: Aliphatic polyurethane enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 5.0 mils
 - 1) PPG: 95-8800 Series Pitthane High Build Semi-Gloss Urethane

- Enamel.
5. Mild Environment (High-Gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Acrylic primer.
 - 1) PPG/Porter Paints: PP212/215 Porter Guard DTM Interior/Exterior Acrylic Primer Finish: Applied at a dry film thickness of not less than 3.0 mils (0.076 mm).
 - b. Intermediate Coat: Acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG/Porter Paints: PP2909 Series Porter Guard Interior/Exterior DTM Waterborne Gloss Acrylic Enamel.
 - c. Topcoat: High-gloss acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG/Porter Paints: PP2909 Series Porter Guard Interior/Exterior DTM Waterborne Gloss Acrylic Enamel.
 6. Mild Environment (Semi-gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Acrylic primer.
 - 1) PPG/Porter Paints: PP212/215 Porter Guard DTM Interior/Exterior Acrylic Primer Finish: Applied at a dry film thickness of not less than 3.0 mils (0.076 mm).
 - b. Intermediate Coat: Unless otherwise indicated, acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG/Porter Paints: PP2809 Series Porter Guard Interior/Exterior DTM Waterborne Satin Acrylic Enamel.
 - c. Topcoat: Semi-gloss acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG/Porter Paints: PP2809 Series Porter Guard Interior/Exterior DTM Waterborne Satin Acrylic Enamel.

2.7 INTERIOR HIGH PERFORMANCE COATING SYSTEMS

- A. Concrete and Masonry (Other Than Concrete Masonry Units): Provide the following finish systems over interior concrete and brick masonry surfaces:
 1. Severe Environment (High-Gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Epoxy primer.
 - 1) PPG: 97-145 Series Pitt-Guard DTR Polyamide Epoxy Coating.
 - b. Intermediate Coat: Epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG: 95-1 Series Aquapon 35 Gloss Polyamide-Epoxy Coating.
 - c. Topcoat: High-gloss epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG: 95-1 Series Aquapon 35 Gloss Polyamide-Epoxy Coating.
 2. Severe Environment (Semi-gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Epoxy primer.
 - 1) PPG: 97-145 Series Pitt-Guard DTR Polyamide Epoxy Coating.
 - b. Intermediate Coat: Epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 4.0 to 6.0 mils
 - 1) PPG: 97-130 Series Aquapon High Build Semi-Gloss Polyamide Epoxy Coating.

- c. Topcoat: Semi-gloss polyamide epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 4.0 to 6.0 mils
 - 1) PPG: 97-130 Series Aquapon High Build Semi-Gloss Polyamide Epoxy Coating.
- 3. Moderate Environment (High-Gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Epoxy primer.
 - 1) PPG: 97-145 Series Pitt-Guard DTR Polyamide Epoxy Coating.
 - b. Intermediate Coat: Epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG: 95-1 Series Aquapon 35 Gloss Polyamide-Epoxy Coating.
 - c. Topcoat: High-gloss epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG: 95-1 Series Aquapon 35 Gloss Polyamide-Epoxy Coating.
- 4. Moderate Environment (Semi-gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Epoxy primer.
 - 1) PPG: 97-145 Series Pitt-Guard DTR Polyamide Epoxy Coating.
 - b. Intermediate Coat: Epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 4.0 to 6.0 mils
 - 1) PPG: 97-130 Series Aquapon High Build Semi-Gloss Polyamide Epoxy Coating.
 - c. Topcoat: Semi-gloss polyamide epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 4.0 to 6.0 mils
 - 1) PPG: 97-130 Series Aquapon High Build Semi-Gloss Polyamide Epoxy Coating.
- 5. Mild Environment (High-Gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Acrylic primer.
 - 1) PPG: 4-603 Perma-Crete Interior/Exterior Alkali Resistant Primer. Applied at a dry film thickness of not less than 1.2 mils (0.030 mm).
 - b. Intermediate Coat: Acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG/Porter Paints: PP2909 Series Porter Guard Interior/Exterior DTM Waterborne Gloss Acrylic Enamel.
 - c. Topcoat: High-gloss acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG/Porter Paints: PP2909 Series Porter Guard Interior/Exterior DTM Waterborne Gloss Acrylic Enamel.
- 6. Mild Environment (Semi-gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Acrylic primer.
 - 1) PPG Paints: 4-603 Perma-Crete Interior/Exterior Alkali Resistant Primer. Applied at a dry film thickness of not less than 1.2 mils (0.030 mm).
 - b. Intermediate Coat: Waterborne acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG/Porter Paints: PP2809 Series Porter Guard Interior/Exterior DTM Waterborne Satin Acrylic Enamel.
 - c. Topcoat: Semi-gloss acrylic emulsion applied at spreading rate

recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils

- 1) PPG/Porter Paints: PP2809 Series Porter Guard Interior/Exterior DTM Waterborne Satin Acrylic Enamel.

B. Concrete Masonry Units: Provide the following finish systems over interior concrete masonry block:

1. Severe Environment (High-Gloss Finish): One finish coat over an intermediate coat and a block filler.
 - a. Block Filler: Epoxy block filler.
 - 1) PPG: 97-685 Series Aquapon Polyamide-Epoxy Block Filler.
 - b. Intermediate Coat: Epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG: 95-1 Series Aquapon 35 Gloss Polyamide-Epoxy Coating.
 - c. Topcoat: High-gloss epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG: 95-1 Series Aquapon 35 Gloss Polyamide-Epoxy Coating.
2. Severe Environment (Semi-gloss Finish): One finish coat over an intermediate coat and a block filler.
 - a. Block Filler: Epoxy block filler.
 - 1) PPG: 97-685 Series Aquapon Polyamide-Epoxy Block Filler.
 - b. Intermediate Coat: Epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 4.0 to 6.0 mils
 - 1) PPG: 97-130 Series Aquapon High Build Semi-Gloss Polyamide Epoxy Coating.
 - c. Topcoat: Semi-gloss epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 4.0 to 6.0 mils
 - 1) PPG: 97-130 Series Aquapon High Build Semi-Gloss Polyamide Epoxy Coating.
3. Moderate Environment (High-Gloss Finish): One finish coat over an intermediate coat and a block filler.
 - a. Block Filler: Epoxy block filler.
 - 1) PPG: 97-685 Series Aquapon Polyamide-Epoxy Block Filler.
 - b. Intermediate Coat: Epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG: 95-1 Series Aquapon 35 Gloss Polyamide-Epoxy Coatings.
 - c. Topcoat: High-gloss epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG: 95-1 Series Aquapon 35 Gloss Polyamide-Epoxy Coating.
4. Moderate Environment (Semi-gloss Finish): One finish coat over an intermediate coat and a block filler.
 - a. Block Filler: Epoxy block filler.
 - 1) PPG: 97-685 Series Aquapon Polyamide-Epoxy Block Filler.
 - b. Intermediate Coat: Epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 4.0 to 6.0 mils
 - 1) PPG: 97-130 Series Aquapon High Build Semi-Gloss Polyamide Epoxy Coating.
 - c. Topcoat: Semi-gloss epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 4.0 to 6.0 mils
 - 1) PPG: 97-130 Series Aquapon High Build Semi-Gloss Polyamide Epoxy Coating.
5. Mild Environment (High-Gloss Finish): One finish coat over an intermediate coat and a block filler.
 - a. Block Filler: Acrylic block filler.
 - 1) PPG/Porter Paints: PP896 Acri-Fil High Performance Interior/

- 1) PPG: 97-145 Series Pitt-Guard D-T-R Polyamide Epoxy Coating.
 - b. Intermediate Coat: Epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG: 95-1 Series Aquapon 35 Gloss Polyamide Epoxy Coating.
 - c. Topcoat: High-gloss epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG: 95-1 Series Aquapon 35 Gloss Polyamide Epoxy Coating.
 4. Moderate Environment (Semi-gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Epoxy primer.
 - 1) PPG: 97-145 Series Pitt-Guard D-T-R Polyamide Epoxy Coating.
 - b. Intermediate Coat: Epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 4.0 to 6.0 mils
 - 1) PPG: 97-130 Series Aquapon High Build Semi-Gloss Epoxy Coating.
 - c. Topcoat: Semi-gloss acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 4.0 to 6.0 mils
 - 1) PPG: 97-130 Series Aquapon High Build Semi-Gloss Epoxy Coating.
 5. Mild Environment (High-Gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Acrylic primer.
 - 1) PPG/Porter Paints: 1129 BlankIt 100% Acrylic Primer: Applied at a dry film thickness of not less than 1.4 mil (0.036 mm).
 - b. Intermediate Coat: Acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG/Porter Paints: PP2909 Series Porter Guard Interior/Exterior DTM Waterborne Gloss Acrylic Enamel.
 - c. Topcoat: High-gloss acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG/Porter Paints: PP2909 Series Porter Guard Interior/Exterior DTM Waterborne Gloss Acrylic Enamel.
 6. Mild Environment (Semi-gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Acrylic primer.
 - 1) PPG/Porter Paints: 1129 BlankIt 100% Acrylic Primer: Applied at a dry film thickness of not less than 1.4 mil (0.036 mm).
 - b. Intermediate Coat: Acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG/Porter Paints: PP2809 Series Porter Guard Interior/Exterior DTM Waterborne Satin Acrylic Enamel.
 - c. Topcoat: Semi-gloss acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG/Porter Paints: PP2809 Series Porter Guard Interior/Exterior DTM Waterborne Satin Acrylic Enamel.
- D. Ferrous Metal: Provide the following finish systems over interior ferrous-metal surfaces:
1. Severe Environment (High-Gloss Finish): One finish coat over an intermediate coat and a primer.

- a. Primer: Epoxy primer.
 - 1) PPG: 97-145 Series Pitt-Guard DTR Polyamide Epoxy Coating.
 - b. Intermediate Coat: Epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils.
 - 1) PPG: 95-1 Series Aquapon 35 Gloss Polyamide-Epoxy Coating.
 - c. Topcoat: High-gloss epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG: 95-1 Series Aquapon 35 Gloss Polyamide-Epoxy Coating.
2. Severe Environment (Semi-gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Epoxy primer.
 - 1) PPG: 97-145 Series Pitt-Guard DTR Polyamide Epoxy Coating at 5.0 to 7.0 dry film thickness.
 - b. Intermediate Coat: Epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 4.0 to 6.0 mils
 - 1) PPG: 97-130 Series Aquapon High Build Semi-Gloss Polyamide Epoxy Coating.
 - c. Topcoat: Semi-gloss epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 4.0 to 6.0 mils
 - 1) PPG: 97-130 Series Aquapon High Build Semi-Gloss Polyamide Epoxy Coating.
 3. Moderate Environment (High-Gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Epoxy primer.
 - 1) PPG: 97-145 Series Pitt-Guard DTR Polyamide Epoxy Coating.
 - b. Intermediate Coat: Epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG: 95-1 Series Aquapon 35 Gloss Polyamide-Epoxy Coating.
 - c. Topcoat: High-gloss epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG: 95-1 Series Aquapon 35 Gloss Polyamide-Epoxy Coating.
 4. Moderate Environment (Semi-gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Epoxy primer.
 - 1) PPG: 97-145 Series Pitt-Guard DTR Polyamide Epoxy Coating.
 - b. Intermediate Coat: Epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 4.0 to 6.0 mils
 - 1) PPG: 97-130 Series Aquapon High Build Semi-Gloss Polyamide Epoxy Coating.
 - c. Topcoat: Semi-gloss epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 4.0 to 6.0 mils
 - 1) PPG: 97-130 Series Aquapon High Build Semi-Gloss Polyamide Epoxy Coating.
 5. Mild Environment (High-Gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Acrylic primer.
 - 1) PPG/Porter Paints: PP212/215 Porter Guard DTM Interior/Exterior Acrylic Primer Finish: Applied at a dry film thickness of not less than 3.0 mils (0.076 mm).
 - b. Intermediate Coat: Acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG/Porter Paints: PP2909 Series Porter Guard Interior/Exterior DTM Waterborne Gloss Acrylic Enamel.
 - c. Topcoat: High-gloss acrylic enamel applied at spreading rate

recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils

- 1) PPG/Porter Paints: PP2909 Series Porter Guard Interior/Exterior DTM Waterborne Gloss Acrylic Enamel.

6. Mild Environment (Semi-gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Acrylic primer.
 - 1) PPG/Porter Paints: PP212/215 Porter Guard DTM Interior/Exterior Acrylic Primer Finish: Applied at a dry film thickness of not less than 3.0 mils (0.076 mm).
 - b. Intermediate Coat: Acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG/Porter Paints: PP2809 Series Porter Guard Interior/Exterior DTM Waterborne Satin Acrylic Enamel.
 - c. Topcoat: Semi-gloss acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG/Porter Paints: PP2809 Series Porter Guard Interior/Exterior DTM Waterborne Satin Acrylic Enamel.

E. Nonferrous Metal: Provide the following finish systems over interior nonferrous-metal surfaces:

1. Severe Environment (High-Gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Epoxy primer.
 - 1) PPG: 97-145 Series Pitt-Guard DTR Polyamide Epoxy. Coating.
 - b. Intermediate Coat: Epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG: 95-1 Series Aquapon 35 Gloss Polyamide-Epoxy Coating.
 - c. Topcoat: High-gloss epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG: 95-1 Series Aquapon 35 Gloss Polyamide-Epoxy Coating
2. Severe Environment (Semi-gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Epoxy primer.
 - 1) PPG: 97-145 Series Pitt-Guard DTR Polyamide Epoxy Coating.
 - b. Intermediate Coat: Epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 4.0 to 6.0 mils
 - 1) PPG: 97-130 Series Aquapon High Build Semi-Gloss Polyamide Epoxy Coating.
 - c. Topcoat: Semi-gloss epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 4.0 to 6.0 mils
 - 1) PPG: 97-130 Series Aquapon High Build Semi-Gloss Polyamide Epoxy Coating.
3. Moderate Environment (High-Gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Epoxy primer.
 - 1) PPG: 97-145 Series Pitt-Guard DTR Polyamide Epoxy Coating.
 - b. Intermediate Coat: Epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG: 95-1 Series Aquapon 35 Gloss Polyamide-Epoxy Coating..
 - c. Topcoat: High-gloss epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils

- 1) PPG: 95-1 Series Aquapon 35 Gloss Polyamide-Epoxy Coating.
4. Moderate Environment (Semi-gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Epoxy primer.
 - 1) PPG: 97-145 Series Pitt-Guard DTR Polyamide Epoxy Coating.
 - b. Intermediate Coat: Epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 4.0 to 6.0 mils
 - 1) PPG: 97-130 Series Aquapon High Build Semi-Gloss Polyamide Epoxy Coating.
 - c. Topcoat: Semi-gloss epoxy applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 4.0 to 6.0 mils
 - 1) PPG: 97-130 Series Aquapon High Build Semi-Gloss Polyamide Epoxy Coating.
5. Mild Environment (High-Gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Acrylic primer.
 - 1) PPG/Porter Paints: PP212/215 Porter Guard DTM Interior/Exterior Acrylic Primer Finish: Applied at a dry film thickness of not less than 3.0 mils (0.076 mm).
 - b. Intermediate Coat: Acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG/Porter Paints: PP2909 Series Porter Guard Interior/Exterior DTM Waterborne Gloss Acrylic Enamel.
 - c. Topcoat: High-gloss acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG/Porter Paints: PP2909 Series Porter Guard Interior/Exterior DTM Waterborne Gloss Acrylic Enamel.
6. Mild Environment (Semi-gloss Finish): One finish coat over an intermediate coat and a primer.
 - a. Primer: Acrylic primer.
 - 1) PPG/Porter Paints: PP212/215 Porter Guard DTM Interior/Exterior Acrylic Primer Finish: Applied at a dry film thickness of not less than 3.0 mils (0.076 mm).
 - b. Intermediate Coat: Acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 4.0 mils
 - 1) PPG/Porter Paints: PP2809 Series Porter Guard Interior/Exterior DTM Waterborne Satin Acrylic Enamel.
 - c. Topcoat: Semi-gloss acrylic enamel applied at spreading rate recommended by manufacturer to achieve a dry film thickness of 2.0 to 3.0 mils
 - 1) PPG/Porter Paints: PP2809 Series Porter Guard Interior/Exterior DTM Waterborne Satin Acrylic Enamel.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- C. Coordination of Work: Review other Sections in which primers are provided to

1. Notify Architect about anticipated problems when using the materials specified over substrates primed by others.
2. If a potential incompatibility of primers applied by others exists, obtain the following from the primer Applicator before proceeding:
 - a. Confirmation of primer's suitability for expected service conditions.
 - b. Confirmation of primer's ability to be top coated with materials specified.

3.2 PREPARATION

- A. General: Remove hardware and hardware accessories, plates, machined surfaces, lighting fixtures, and similar items already installed that are not to be painted. If removal is impractical or impossible because of size or weight of the item, provide surface-applied protection before surface preparation and painting.
 1. After completing painting operations in each space or area, reinstall items removed using workers skilled in the trades involved.
- B. Cleaning: Before applying paint or other surface treatments, clean substrates of substances that could impair bond of the various coatings. Remove oil and grease before cleaning.
 1. Schedule cleaning and painting so dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.
- C. Surface Preparation: Clean and prepare surfaces to be painted according to manufacturers written instructions for each particular substrate condition and as specified.
 1. Provide barrier coats over incompatible primers or remove and reprime.
 2. Provide barrier coats over incompatible primers or remove primers and reprime substrate.
 3. Cementitious Substrates: Prepare concrete, brick, concrete masonry block, and cement plaster surfaces to be coated. Remove efflorescence, chalk, dust, dirt, grease, oils, and release agents. Roughen as required to remove glaze. If hardeners or sealers have been used to improve curing, use mechanical methods to prepare surfaces.
 - a. Use abrasive blast-cleaning methods if recommended by coating manufacturer.
 - b. Determine alkalinity and moisture content of surfaces by performing appropriate tests. If surfaces are sufficiently alkaline to cause the finish paint to blister and burn, correct this condition before application. Do not coat surfaces if moisture content exceeds that permitted in manufacturer's written instructions.
 4. Wood Substrates: Clean surfaces of dirt, oil, and other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Smoothly sand surfaces exposed to view and dust off.
 - a. Scrape and clean small, dry, seasoned knots, and apply a thin coat of white shellac or other recommended knot sealer, before applying primer.
 - b. Immediately on delivery, prime edges, ends, faces, undersides, and backsides of wood to be coated.
 - c. After priming, fill holes and imperfections in the finish surfaces with putty or plastic wood filler. Sand smooth when dried.
 5. Ferrous–Metal Substrates: Clean ungalvanized ferrous-metal surfaces that have not been shop coated; remove oil, grease, dirt, loose mill scale, and

other foreign substances. Use solvent or mechanical cleaning methods that comply with SSPC recommendations.

- a. Blast-clean steel surfaces as recommended by coating manufacturer and according to SSPC-SP 10.
 - b. Treat bare and sandblasted or pickled clean metal with a metal treatment wash coat before priming.
 - c. Touch up bare areas and shop-applied prime coats that have been damaged. Wire brush, solvent clean, and touch up with same primer as the shop coat.
6. Nonferrous-Metal Substrates: Clean nonferrous and galvanized surfaces according to manufacturer's written instructions for the type of service, metal substrate, and application required.
- a. Remove pretreatment from galvanized sheet metal fabricated from coil stock by mechanical methods.
- D. Material Preparation: Carefully mix and prepare coating materials according to manufacturers written instructions.
1. Maintain containers used in mixing and applying coatings in a clean condition, free of foreign materials and residue.
 2. Stir materials before applying to produce a mixture of uniform density. Stir as required during application. Do not stir surface film into the material. Remove film and, if necessary, strain coating material before using.
 3. Use only the type of thinners approved by manufacturer and only within recommended limits.
 4. Tinting: Tint each undercoat a lighter shade to simplify identification of each coat when multiple coats of same material are applied. Tint undercoats to match the color of the finish coat, but provide sufficient differences in shade of undercoats to distinguish each separate coat.

3.3 APPLICATION

- A. General: Apply paint according to manufacturer's written instructions. Use applicators and techniques best suited for substrate and type of material being applied.
- B. General: Apply high-performance coatings according to manufacturer's written instructions.
1. Use applicators and techniques best suited for the material being applied.
 2. Do not apply high-performance coatings over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to forming a durable coating film.
 3. Coating surface treatments, and finishes are indicated in the coating system descriptions.
 4. Provide finish coats compatible with primers used.
 5. The term "exposed surfaces" includes areas visible when permanent or built-in fixtures, convector covers, grilles, covers for finned-tube radiation, and similar components are in place. Extend coatings in these areas, as required, to maintain system integrity and provide desired protection.
- C. Application Procedures: Apply coatings by brush, roller, spray, or other applicators according to manufacturer's written instructions.
1. The number of coats and film thickness required is the same regardless of application method.
 2. Completed Work: Match approved Samples for color, texture, and coverage. Remove, refinish, or recoat work that does not comply with specified requirements.

3.4 FIELD QUALITY CONTROL

- A. Owner reserves the right to invoke the following test procedure at any time and as often as Owner deems necessary during the period when paint is being applied:
 - 1. Owner will engage a qualified independent testing agency to sample paint material being used. Samples of material delivered to Project will be taken, identified, sealed, and certified in the presence of Contractor.
 - 2. Owner may direct Contractor to stop painting if test results show material being used does not comply with specified requirements. Contractor shall remove noncomplying paint from Project site, pay for testing, and repaint surfaces previously coated with the noncomplying paint. If necessary, Contractor may be required to remove noncomplying paint from previously painted surfaces if, on repainting with specified paint, the two coatings are incompatible.

3.5 CLEANING

- A. After completing painting, clean glass and paint-spattered surfaces. Remove spattered paint by washing and scraping without scratching or damaging adjacent finished surfaces.

3.6 PROTECTION

- A. Protect work of other trades, whether being painted or not, against damage from painting. Correct damage by cleaning, repairing or replacing, and repainting, as approved by Architect.
- B. Provide "Wet Paint" signs to protect newly painted finishes. After completing painting operations, remove temporary protective wrappings provided by others to protect their work.
- C. After work of other trades is complete, touch up and restore damaged or defaced painted surfaces.

END OF SECTION