

SECTION 099000

PAINTING AND COATING

(Part of Work of Section 090007 - PAINTING, Filed Sub-Bid Required)

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.

1.2 DESCRIPTION OF WORK

- A. Work Included: Provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following:
1. Field painting of exposed interior items and surfaces.
 2. Field painting of exposed exterior items and surfaces.
 3. Surface preparation for painting.
- B. Sustainable Design Intent: Refer to Section 018113 - SUSTAINABLE DESIGN REQUIREMENTS for certification level and certification requirements.
- C. Related Work: The following items are not included in this Section and are specified under the designated Sections:
1. Section 051200 - STRUCTURAL STEEL FRAMING for shop priming structural steel.
 2. Section 055000 - METAL FABRICATIONS for shop priming ferrous metal.
 3. Section 055100 - METAL STAIRS AND RAILINGS for shop priming ferrous metal.
 4. Section 064020 - INTERIOR ARCHITECTURAL WOODWORK for shop priming interior architectural woodwork.
 5. Section 074610 - FIBER-CEMENT SIDING for factory priming siding and trim.
 6. Section 078100 - APPLIED FIREPROOFING for intumescent fire-resistive coatings.
 7. Section 081110 - HOLLOW METAL DOORS AND FRAMES for factory priming steel doors and frames.
 8. Section 081400 - FLUSH WOOD DOORS for factory finishing.
 9. Section 092110 - GYPSUM BOARD ASSEMBLIES for surface preparation of gypsum board.

1.3 DEFINITIONS AND EXTENT

- A. General: Standard coating terms defined in ASTM D 16 apply to this Section.
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. Semigloss 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. This Section includes surface preparation and field painting of exposed exterior and interior items and surfaces.
 1. Surface preparation, priming, and finish coats specified in this Section are in addition to shop priming and surface treatment specified in other Sections.
- C. Paint exposed surfaces, except where these Specifications indicate that the surface or material is not to be painted or is to remain natural. 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.
 1. Painting includes field painting of exposed bare and covered pipes and ducts (including color coding), hangers, exposed steel and iron supports, and surfaces of mechanical and electrical equipment that do not have a factory-applied final finish.
- D. Do NOT paint prefinished items, concealed surfaces, finished metal surfaces, operating parts, and labels.
 1. Prefinished items include the following factory-finished components:
 - a. Architectural woodwork.
 - b. Acoustical wall panels.
 - c. Toilet enclosures.
 - d. Metal lockers.
 - e. Kitchen appliances.
 - f. Elevator entrance doors and frames.
 - g. Elevator equipment.
 - h. Finished mechanical and electrical equipment.
 - i. Light fixtures.
 2. Concealed surfaces include walls or ceilings in the following generally inaccessible spaces:
 - a. Foundation spaces.
 - b. Furred areas.
 - c. Ceiling plenums.
 - d. Utility tunnels.
 - e. Pipe spaces.
 - f. Duct shafts.
 - g. Elevator shafts.
 3. Finished metal surfaces include the following:
 - a. Anodized aluminum.
 - b. Stainless steel.
 - c. Chromium plate.
 - d. Copper and copper alloys.
 - e. Bronze and brass.
 4. Operating parts include moving parts of operating equipment and the following:

- a. Valve and damper operators.
 - b. Linkages.
 - c. Sensing devices.
 - d. Motor and fan shafts.
5. Labels: Do not paint over UL, FMG, or other code-required labels or equipment name, identification, performance rating, or nomenclature plates.

1.4 SUBMITTALS

- A. Product Data: For each paint system indicated. Include block fillers and primers.
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.
 - a. Disclose material ingredients by name and Chemical Abstract Service (CAS) Registry Number.
 2. Manufacturer's Information: Manufacturer's technical information, including label analysis and instructions for handling, storing, and applying each coating material.
- B. LEED Submittals:
1. Building Product Disclosure and Optimization, Environmental Product Declarations (EPD):
 - a. Option 1: For paints, submit industry-wide EPDs and product-specific Type III EPDs.
 2. Building Product Disclosure and Optimization, Material Ingredients:
 - a. Option 1, Material Ingredient Reporting: For paints, submit Cradle to Cradle (C2C) certifications, Health Product Declarations (HPD), or Declare product labels.
 3. Low-Emitting Materials, General Emissions Evaluation: Building products must be tested and determined compliant in accordance with California Department of Public Health (CDPH) Standard Method v1.1–2010, using the applicable exposure scenario.
 - a. For field-applied paints and coatings, submit test results, including TVOC emissions and VOC content.
 - b. For paints, submit GreenGuard Gold or SCS Indoor Advantage Gold certifications.
 - c. For wet-applied products, submit volume used.
- C. Samples for Verification: For each color and material to be applied, with texture to simulate actual conditions, on representative Samples of the actual substrate.
1. Provide stepped Samples, defining each separate coat, including block fillers and primers. Use representative colors when preparing Samples for review. Resubmit until required sheen, color, and texture are achieved.
 2. Provide a list of materials and applications for each coat of each Sample. Label each Sample for location and application.
 3. Submit two 8 inch by 12 inch Samples for each type of finish coating for Architect's review of color and texture only.

- D. Qualification Data: For Applicator.

1.5 QUALITY ASSURANCE

- A. Applicator 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. Source Limitations: Obtain block fillers and primers for each coating system from the same manufacturer as the finish coats.
- C. Mockups: Provide a full-coat benchmark finish sample for each type of coating and substrate required. Comply with procedures specified in PDCA P5. Duplicate finish of approved sample Submittals.
 - 1. Architect will select one room or surface to represent surfaces and conditions for application of each type of coating and substrate.
 - a. Wall Surfaces: Provide samples on at least 100 sq. ft.
 - b. Small Areas and Items: Architect will designate items or areas required.
 - 2. Apply benchmark samples, according to requirements for the completed Work, after permanent lighting and other environmental services have been activated. Provide required sheen, color, and texture on each surface.
 - a. After finishes are accepted, Architect will use the room or surface to evaluate coating systems of a similar nature.
 - 3. Final approval of colors will be from benchmark samples.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label and the following information:
 - 1. Product name or title of material.
 - 2. Product description (generic classification or binder type).
 - 3. Manufacturer's stock number and date of manufacture.
 - 4. Contents by volume, for pigment and vehicle constituents.
 - 5. Thinning instructions.
 - 6. Application instructions.
 - 7. Color name and number.
 - 8. VOC content.
- B. Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45 deg F. Maintain storage containers in a clean condition, free of foreign materials and residue.
 - 1. Protect from freezing. Keep storage area neat and orderly. Remove oily rags and waste daily.

1.7 PROJECT CONDITIONS

- A. Apply waterborne paints only when temperatures of surfaces to be painted and surrounding air

are between 50 and 90 deg F.

- B. Apply solvent-thinned paints only when temperatures of surfaces to be painted and surrounding air are between 45 and 95 deg F.
- C. 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 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.

1.8 EXTRA MATERIALS

- A. Furnish extra materials that match and are from same production runs as products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Paint: Furnish four unopened gallons of each type of paint and coating work, in color and gloss as used for the Project.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work are listed in the Finish Schedule at the end of this Section.

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. Material Quality: Provide manufacturer's best-quality paint material of the various coating types specified that are factory formulated and recommended by manufacturer for application indicated. Paint-material containers not displaying manufacturer's product identification will not be acceptable.
 - 1. Proprietary Names: Use of manufacturer's proprietary product names to designate colors or materials is not intended to imply that products named are required to be used to the exclusion of equivalent products of other manufacturers. Furnish manufacturer's material data and certificates of performance for proposed substitutions.
- C. Paint Colors (PT-#): Refer to Finish Schedule.
- D. VOC Content for Interior Paints and Coatings: 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 (SCAQMD and CARB).
 - 2. Nonflat Paints and Coatings: 50 g/L (SCAQMD) or 100 g/L (CARB).

3. Nonflat, High Gloss Paints and Coatings: 50 g/L (SCAQMD) or 150 g/L (CARB).
 4. Dry-Fog Coatings: 50 g/L (SCAQMD) or 150 g/L (CARB).
 5. Primers, Sealers, and Undercoaters: 100 g/L.
 6. Anticorrosive and Antirust Paints Applied to Ferrous Metals (Industrial Maintenance and Rust Preventative Coatings): 100 g/L (SCAQMD) or 250 g/L (CARB).
 7. Zinc-Rich Industrial Maintenance Primers: 100 g/L (SCAQMD) or 340 g/L (CARB).
 8. Pretreatment Wash Primers: 420 g/L.
 9. Floor Coatings: 50 g/L (SCAQMD) or 100 g/L (CARB).
 10. Shellacs, Clear: 730 g/L.
 11. Shellacs, Pigmented: 550 g/L.
 12. Clear Wood Finishes: 275 g/L.
 13. Stains, Exterior: 100 g/L (SCAQMD) or 250 g/L (CARB).
 14. Stains, Interior: 250 g/L.
- E. 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."

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Applicator present, for compliance with requirements for paint application.
1. Proceed with paint application only after unsatisfactory conditions have been corrected and surfaces receiving paint are thoroughly dry.
 2. Start of painting will be construed as Applicator's acceptance of surfaces and conditions within a particular area.
- B. Coordination of Work: Review other Sections in which primers are provided to ensure compatibility of the total system for various substrates. On request, furnish information on characteristics of finish materials to ensure use of compatible primers.
1. Notify Architect about anticipated problems when using the materials specified over substrates primed by others.

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 manufacturer's written instructions and technical bulletins for each particular substrate condition and as specified.
1. Provide barrier coats over incompatible primers or remove and reprime.
 2. Cementitious Materials: Prepare concrete, concrete unit masonry, cement plaster, and mineral-fiber-reinforced cement panel surfaces to be painted. 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 of surface preparation.
 - a. Use abrasive blast-cleaning methods if recommended by paint 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 paint surfaces if moisture content exceeds that permitted in manufacturer's written instructions.
 - c. Clean concrete floors to be painted with a 5 percent solution of muriatic acid or other etching cleaner. Flush the floor with clean water to remove acid, neutralize with ammonia, rinse, allow to dry, and vacuum before painting.
 3. Wood: Clean surfaces of dirt, oil, and other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Sand surfaces exposed to view smooth 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. After priming, fill holes and imperfections in finish surfaces with putty or plastic wood filler. Sand smooth when dried.
 - b. Prime, stain, or seal wood to be painted immediately on delivery. Prime edges, ends, faces, undersides, and back sides of wood, including cabinets, counters, cases, and paneling.
 - c. If transparent finish is required, backprime with spar varnish.
 - d. Backprime paneling on interior partitions where masonry, plaster, or other wet wall construction occurs on back side.
 - e. Seal tops, bottoms, and cutouts of unprimed wood doors with a heavy coat of varnish or sealer immediately on delivery.
 4. Ferrous Metals: 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's recommendations.
 - a. Exterior Exposed Steel: Clean steel surfaces in accordance with SSPC-SP 6/NACE No. 3 Commercial Blast Cleaning. Abrasive blast cleaned surfaces shall exhibit a uniform, angular profile of 1.5-3.0 mils. Prime cleaned surfaces within 8 hours and prior to surface rusting.
 - b. Interior Exposed Steel, in Humid Environments: Clean steel surfaces in accordance with SSPC-SP 6/NACE No. 3 Commercial Blast Cleaning. Abrasive blast cleaned surfaces shall exhibit a uniform, angular profile of 1.5-3.0 mils. Prime cleaned surfaces within 8 hours and prior to surface rusting.
 - c. Interior Exposed Steel, in Dry Environments: Clean steel surfaces in accordance with SSPC-SP2 or SP3 Hand or Power Tool Cleaning.
 5. Galvanized Surfaces: Clean galvanized surfaces in accordance with SSPC-SP16 Brush off Blast Cleaning of Galvanized Steel and NonFerrous Metals, to achieve a minimum 1 mil anchor profile.

- D. Material Preparation: Mix and prepare paint materials according to manufacturer's written instructions.
1. Maintain containers used in mixing and applying paint in a clean condition, free of foreign materials and residue.
 2. Stir material before application to produce a mixture of uniform density. Stir as required during application. Do not stir surface film into material. If necessary, remove surface film and strain material before using.
 3. Use only thinners approved by paint manufacturer and only within recommended limits.
- E. 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.
1. Paint colors, surface treatments, and finishes are indicated in the paint schedules.
 2. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to formation of a durable paint film.
 3. Provide finish coats that are compatible with primers used.
 4. The term "exposed surfaces" includes areas visible when permanent or built-in fixtures, grilles, convector covers, 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.
 5. Paint surfaces behind movable equipment and furniture the same as similar exposed surfaces. Before final installation of equipment, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
 6. Paint interior surfaces of ducts with a flat, nonspecular black paint where visible through registers or grilles.
 7. Paint backsides of access panels and removable or hinged covers to match exposed surfaces.
 8. Finish exterior doors and doors in wet areas on tops, bottoms, and side edges the same as exterior faces.
 9. Sand lightly between each succeeding enamel or varnish coat.
- B. Scheduling Painting: Apply first coat to surfaces that have been cleaned, pretreated, or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.
1. The number of coats and film thickness required are the same regardless of application method. Do not apply succeeding coats until previous coat has cured as recommended by manufacturer. If sanding is required to produce a smooth, even surface according to manufacturer's written instructions, sand between applications.
 2. Omit primer over metal surfaces that have been shop primed and touchup painted.
 3. If undercoats, stains, or other conditions show through final coat of paint, apply additional coats until paint film is of uniform finish, color, and appearance. Give special attention to ensure that edges, corners, crevices, welds, and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.
 4. Allow sufficient time between successive coats to permit proper drying. Do not recoat surfaces until paint has dried to where it feels firm, and does not deform or feel sticky under moderate thumb pressure, and until application of another coat of paint does not cause undercoat to lift or lose adhesion.

- C. Application Procedures: Apply paints and coatings by brush, roller, spray, or other applicators according to manufacturer's written instructions.
1. Brushes: Use brushes best suited for type of material applied. Use brush of appropriate size for surface or item being painted.
 2. Rollers: Use rollers of carpet, velvet-back, or high-pile sheep's wool as recommended by manufacturer for material and texture required.
 3. Spray Equipment: Use airless spray equipment with orifice size as recommended by manufacturer for material and texture required.
- D. Minimum Coating Thickness: Apply paint materials no thinner than manufacturer's recommended spreading rate to achieve dry film thickness indicated. Provide total dry film thickness of the entire system as recommended by manufacturer.
- E. Mechanical and Electrical Work: Painting of mechanical and electrical work is limited to items exposed in equipment rooms and occupied spaces.
- F. Mechanical items to be painted include, but are not limited to, the following:
1. Uninsulated metal piping.
 2. Uninsulated plastic piping.
 3. Pipe hangers and supports.
 4. Tanks that do not have factory-applied final finishes.
 5. Visible portions of internal surfaces of metal ducts, without liner, behind air inlets and outlets.
 6. Duct, equipment, and pipe insulation having "all-service jacket" or other paintable jacket material.
 7. Mechanical equipment that is indicated to have a factory-primed finish for field painting.
- G. Electrical items to be painted include, but are not limited to, the following:
1. Switchgear.
 2. Panelboards.
 3. Electrical equipment that is indicated to have a factory-primed finish for field painting.
- H. Block Fillers: Apply block fillers to concrete masonry block at a rate to ensure complete coverage with pores filled.
- I. Prime Coats: Before applying finish coats, apply a prime coat, as recommended by manufacturer, to material that is required to be painted or finished and that has not been prime coated by others. Recoat primed and sealed surfaces where evidence of suction spots or unsealed areas in first coat appears, to ensure a finish coat with no burn-through or other defects due to insufficient sealing.
- J. Pigmented (Opaque) Finishes: Completely cover surfaces as necessary to provide a smooth, opaque surface of uniform finish, color, appearance, and coverage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections will not be acceptable.
- K. Transparent (Clear) Finishes: Use multiple coats to produce a glass-smooth surface film of even luster. Provide a finish free of laps, runs, cloudiness, color irregularity, brush marks, orange peel, nail holes, or other surface imperfections.
1. Provide satin finish for final coats.

- L. Completed Work: Match approved samples for color, texture, and coverage. Remove, refinish, or repaint work not complying with requirements.

3.4 FIELD QUALITY CONTROL

- A. The Owner reserves the right to invoke the following test procedure at any time and as often as the Owner deems necessary during the period when paint is being applied:
 - 1. The 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. Testing agency will perform appropriate tests for the following characteristics as required by the Architect.
 - 3. The Architect 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. Cleanup: At the end of each workday, remove empty cans, rags, rubbish, and other discarded paint materials from Project site.
 - 1. 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.
 - 1. After work of other trades is complete, touch up and restore damaged or defaced painted surfaces. Comply with procedures specified in PDCA P1.

3.7 PAINT SCHEDULE

- A. Schedule: Provide products and number of coats specified. Use of manufacturer's proprietary product names to designate colors, materials, generic class, standard of quality and performance criteria and is not intended to imply that products named are required to be used to the exclusion of equivalent performing products of other manufacturers.
- B. Exterior Paint Schedule:
 - 1. Exterior Galvanized Metal (not shop-finished under Section 051200 - STRUCTURAL STEEL FRAMING, Section 055000 - METAL FABRICATIONS, or Section 055100 - METAL STAIRS AND RAILINGS), Alliphatic Acrylic Polyurethane System:
 - a. Surface Preparation: SSPC-SP16 Brush-off Blast of Galvanized Steel.

- b. One Coat:
 - 1) Tnemec 66HS Hi-Build Epoxoline at 3.0 mils DFT.
 - 2) PPG PMC Amerlock 400 Hi-Build Epoxy at 4.0-5.0 mils DFT.
 - 3) Dupont 25P High Solids at 4.0 mils DFT.
 - 4) International Intergard 475 HS at 5.0 to 10.0 mils DFT.
 - c. And One Coat:
 - 1) Tnemec 73 Endura-Shield at 3.0 mils DFT.
 - 2) PPG PMC Amercoat 450H Polyurethane at 3.0 mils DFT.
 - 3) Dupont Imron 2.8 Urethane at 3.0 to 4.0 mils DFT.
 - 4) International Interthane 990 HS at 3.0 to 4.0 mils DFT.
2. Exterior Ferrous Metal, Urethane System:
- a. Surface Preparation: SSPC-SP6.
 - b. One Coat:
 - 1) Tnemec 90G-1K97 at 3 mils DFT; shop applied under other Sections; use for touch up.
 - 2) PPG PMC Amercoat 68 MCZ at 3 mils DFT; shop applied under other Sections; use for touch up.
 - 3) Dupont Urethane Ganicin Zinc Rich Primer 80%zinc load at 3.0 mils DFT.
 - 4) International Interzinc 315 at 2.0 to 3.0 mils DFT.
 - c. And One Coat:
 - 1) Tnemec 66HS Hi-Build Epoxoline at 3.0 mils DFT.
 - 2) PPG PMC Amerlock 400 Hi-Build Epoxy at 3.0 to 5.0 mils DFT.
 - 3) Dupont 25P High Solids Epoxy at 4.0 to 6.0 mils DFT.
 - 4) International Intergard 475 HS at 4.0 to 8.0 mils DFT.
 - d. And One Coat:
 - 1) Tnemec 73 Endura-Shield at 3.0 mils DFT.
 - 2) PPG PMC Amerlock 450H Polyurethane Topcoat at 3.0 mils DFT.
 - 3) Dupont High Solids Imron Urethane at 4.0 mils DFT.
 - 4) International Interthane 990 HS at 2.0 to 3.0 mils DFT.
- C. Interior Paint Schedule, Typical:
- 1. Interior Gypsum Wallboard and Plaster, Latex Paint Finish:
 - a. One Coat, Primer:
 - 1) Imperial Paints ECOS Interior Wall Primer.
 - 2) Moore Ultra Spec 500 Interior Latex Primer 534.
 - 3) PPG Speedhide Zero VOC Interior Primer 6-4900XI.
 - 4) S-W Harmony Interior Primer B11 series.
 - 5) S-W ProMar 200 HP Zero VOC Interior Primer.
 - b. And Two Coats, Flat Finish: At ceilings and elsewhere as indicated.

- 1) Imperial Paints ECOS Interior Flat.
 - 2) Moore Ultra Spec 500 Interior Latex Flat 536.
 - 3) PPG Speedhide Zero VOC Interior Latex Flat 6-4110XI.
 - 4) S-W ProMar 400 Zero VOC Interior Flat.
- c. And Two Coats, Eggshell Finish: At walls and elsewhere as indicated.
- 1) Imperial Paints ECOS Interior Eggshell.
 - 2) Moore Ultra Spec 500 Interior Latex Low Sheen 537.
 - 3) PPG Speedhide Zero VOC Interior Latex Eggshell 6-4310XI.
 - 4) S-W ProMar 200 HP Zero VOC Interior Eg-Shel.
- ***** OR *****
- d. And Two Coats, Semi-Gloss Finish: At toilet rooms, other wet areas, and elsewhere as indicated.
- 1) Imperial Paints ECOS Interior Satin.
 - 2) Moore Ultra Spec 500 Interior Latex Semi-Gloss 539.
 - 3) PPG Speedhide Zero VOC Interior Latex Semi-Gloss 6-4510XI.
 - 4) S-W ProMar 200 HP Zero VOC Interior Semi-Gloss.
2. Interior Architectural Woodwork, Finish Carpentry, and Wood Doors (softwoods, paint grade hardwoods, MDF, MDO, and hardwood veneers), Latex Paint Finish:
- a. One Coat, Primer:
- 1) Imperial Paints ECOS Interior Wood Primer.
 - 2) Moore Ultra Spec 500 Interior Latex Primer 534.
 - 3) PPG Speedhide Zero VOC Interior Primer 6-4900XI.
 - 4) S-W ProMar 200 HP Zero VOC Interior Primer.
- b. And Two Coats, Semi-Gloss:
- 1) Imperial Paints ECOS Interior Satin.
 - 2) Moore Ultra Spec 500 Interior Latex Semi-Gloss 539.
 - 3) PPG Speedhide Zero VOC Interior Latex Semi-Gloss 6-4510XI.
 - 4) S-W ProMar 200 HP Zero VOC Interior Semi-Gloss.
3. Interior Architectural Woodwork, Finish Carpentry and Millwork (hardwoods and hardwood veneers, except paint grade and factory-finished items), Transparent Polyurethane Finish:
- a. Sand: 120 grit sandpaper.
- b. Sand: 220 grit sandpaper.
- c. One Coat, Stain: Not Used.
- d. And Three Coats, Satin Finish:
- 1) American Formulating & Manufacturing, Safecoat Polyureseal BP.
 - 2) Imperial Paints ECOS Woodshield Varnish. Moore Benwood Stays Clear Acrylic Polyurethane Low Lustre W423.
 - 4) Vermont Natural Coatings; PolyWhey Natural Furniture Finish.
- e. Sand Between Urethane Coats: 220 grit sandpaper.

4. Interior Metals (Not specified to receive other coating systems/not shop finished), Acrylic Paint Finish:
 - a. One Coat: Approved primer, in shop under other Sections (where specified). If not shop primed, provide primer recommended by finish coating manufacturer.
 - b. And Two Coats:
 - 1) Moore Ultra Spec 500 Interior Latex Semi-Gloss 539.
 - 2) PPG Speedhide Zero VOC Interior Latex Semi-Gloss 6-4510XI.
 - 3) S-W ProMar 200 HP Zero VOC Interior Semi-Gloss.
 5. Interior Exposed Steel, Joists, Ductwork, Conduit and Similar Items (where indicated), Dry-Fall or Dry-Fog Painted System:
 - a. One Coat:
 - 1) Moore Latex Dry Fall Flat 395 at 2.5 to 3.0 mils DFT.
 - 2) PPG Speedhide Super Tech WB Interior Dry-Fog Latex 6-725XI Flat at 2.0 to 2.5 mils DFT.
 - 3) S-W WB Pro Industrial Waterborne Acrylic Dryfall Flat B42 series at 2.5 to 3.0 mils DFT.
 - 4) Tnemec 115 WB Unibond at 2.5 to 3.0 mils DFT.
 6. Interior Concrete Floor, Clear Exposed Sealer (Silicate type):
 - a. One Coat:
 - 1) Curecrete Chemical; Ashford Formula.
 - 2) Tnemec (Chem Probe); Series 629 CT Densifyer.
 - 3) WR Meadows; Liqui-Hard.
 - 4) Laticrete; L&M Seal Hard.
 - 5) Prosoco; Consolideck LS.
- D. Interior Paint Schedule, High Performance and Specialty Systems:
1. Interior Gypsum Wallboard at , Toilet Rooms, and Other Wet Areas, Urethane Coating:
 - a. Surface Preparation: Cured, clean and dry, free of surface contaminants.
 - b. One Coat:
 - 1) Tnemec 201 Epoxoprime at 3.0- 4.0 mils DFT.
 - 2) PPG PMC Amerlock Sealer at 3.0 to 4.5 mils DFT.
 - 3) Dupont Hi-Solids Colar primer at 3.0 to 4.0 mils DFT.
 - 4) International Interseal 670 HS at 3.0 to 4.0 mils DFT.
 - c. And One Coat:
 - 1) Tnemec 280 Tneme-glaze at 6.0 to 8.0 mils DFT.
 - 2) PPG PMC Amercoat 351 Epoxy at 6.0 to 8.0 mils DFT.
 - 3) Dupont 100 % Solids Epoxy at 8.0-10.0 mils.
 - 4) International Interseal 670 HS at 3.0 to 4.0 mils DFT.
 - d. And One Coat:

- 1) Tnemec 1080 or 1081 Endurashield WB at 3.0 to 3.5 mils DFT.
 - 2) PPG PMC AmerShield VOC at 2.0 to 3.0 mils DFT.
 - 3) Dupont WB Urethane at 3.5 to 4.0 mils DFT.
 - 4) International Water Borne Urethane at 3.0 to 4.0 mils DFT.
2. Interior Gypsum Wallboard, Epoxy/Acrylic Coating:
- a. Surface Preparation: Cured, clean and dry, free of surface contaminants.
 - b. Two Coats: Tnemec 27WB at 8-10 mils DFT.
 - c. And One Coat: Tnemec 1028 at 2-3 mils DFT.
3. Interior Concrete Walls Exposed to View (Non-Immersion Service), Epoxy Coating:
- a. Surface Preparation: Cured, clean and dry, free of surface contaminants.
 - b. One Coat:
 - 1) Tnemec 201 Epoxoprime at 2.0 to 3.0 mils DFT.
 - 2) PPG PMC Amerlock Sealer at 1.0 to 1.5 mils DFT.
 - 3) Dupont 25P Epoxy at 6.0 to 8.0 mils DFT.
 - 4) International Interseal 670 HS at 3.0 to 4.0 mils DFT.
 - c. And One Coat:
 - 1) Tnemec 280 Tneme-Glaze at 6.0 to 8.0 mils DFT.
 - 2) PPG PMC Amercoat 133 at 6.0 to 8.0 mils DFT.
 - 3) Dupont 100% Solids Epoxy at 8.0 to 10.0 mils DFT.
 - 4) International Interseal 670 HS at 3.0 to 4.0 mils DFT.
 - d. And One Coat:
 - 1) Tnemec 1080 or 1081 Endura-Shield 2.0 to 3 mils DFT.
 - 2) PPG PMC AmerShield VOC at 2.0 to 3.0 mils DFT.
 - 3) Dupont WB Urethane at 3.0 to 4.0 mils DFT.
 - 4) International Water Borne Urethane at 3.0 to 4.0 mils DFT.
4. Interior Metals (Not specified to receive other coating systems/not shop finished), Epoxy Painted Finish:
- a. One Coat: Approved primer, in shop under other Sections (where specified). If not shop primed, provide primer recommended by finish coating manufacturer.
 - b. And One Coat:
 - 1) Tnemec 1029 Enduratone at 2.0 mils DFT.
 - 2) PPG PMC Amerlock 400 at 2.0 to 4.0 mils DFT.
 - 3) Dupont 25P at 3.0 to 4.0 mils DFT.
 - 4) International Interseal 670 HS at 3.0 mils DFT.
 - c. And One Coat:
 - 1) Tnemec 1029 Enduratone at 2.0 to 3.0 mils DFT.
 - 2) PPG PMC Amerlock 400 at 2.0 to 4.0 mils DFT.
 - 3) Dupont High Solids Acrylic Coating 3.0 mils DFT.
 - 4) International Intercryl 530 at 3.0 to 4.0 mils DFT.

- E. Mechanical and Electrical Work: Paint all exposed items throughout the project except factory finished items with factory-applied baked enamel finishes which occur in mechanical rooms or areas, and excepting chrome or nickel plating, stainless steel, and aluminum other than mill finished. Paint all exposed ductwork and inner portion of all ductwork. Same as specified for other interior metals, hereinabove.

END OF SECTION