

SECTION 099100

PAINTING AND FINISHING

PART 1 GENERAL

1.1 GENERAL REQUIREMENTS

- A. Work of this Section, as shown or specified, shall be in accordance with the requirements of the Contract Documents.

1.2 SECTION INCLUDES

- A. Work of this Section includes all labor, materials, equipment, and services necessary to complete the painting and finishing as shown on the drawings and/or specified herein, including, but not limited to, the following:
 - 1. Prime painting unprimed surfaces to be painted under this Section.
 - 2. Painting all items furnished with a prime coat of paint, including touching up of or repairing of abraded, damaged or rusted prime coats applied by others.
 - 3. Painting all ferrous metal (except stainless steel) exposed to view.
 - 4. Painting all galvanized ferrous metals exposed to view.
 - 5. Painting interior concrete block exposed to view.
 - 6. Painting gypsum drywall exposed to view.
 - 7. Painting plaster surfaces.
 - 8. Painting of wood exposed to view, except items which are specified to be painted or finished under other Sections of these specifications. Back painting of all wood in contact with concrete, masonry or other moisture areas.
 - 9. Sealing concrete floors.
 - 10. Painting pipes, pipe coverings, conduit, ducts, insulation, hangers, supports and other mechanical and electrical items and equipment exposed to view.
 - 11. Painting surfaces above, behind or below grilles, gratings, diffusers, louvers, lighting fixtures, and the like, which are exposed to view through these items.
 - 12. Incidental painting and touching up as required to produce proper finish for painted surfaces, including touching up of factory finished items.
 - 13. Painting of any surface not specifically mentioned to be painted herein or on drawings, but for which painting is obviously necessary to complete the job, or work which comes within the intent of these specifications, shall be included as though specified.

1.3 RELATED SECTIONS

- A. Shop priming is required on some, but not all of the items scheduled to be field painted. Refer to other Sections of work for complete description.
- B. Shop Coat on Machinery and Equipment: Refer to the Sections under which various items of manufactured equipment with factory applied shop prime coats are furnished, including, but not necessarily limited to, the following Sections. All items of equipment furnished with prime coat finish shall be finish painted under this Section.
 - 1. Plumbing - Division 22.
 - 2. Heating, Ventilation and Air Conditioning – Division 23.
- C. Color Coding of Mechanical, Fire-Suppression Piping and Electrical Conduits – Divisions 21, 22 and 26.
 - 1. This Color Coding consists of an adhesive tape system and is in addition to painting of piping and conduits under this Section, as specified above.

1.4 MATERIALS AND EQUIPMENT NOT TO BE PAINTED

- A. Items of equipment furnished with complete factory finish, except for items specified to be given a finish coat under this Section.
- B. Factory-finished toilet partitions.
- C. Factory-finished acoustical tile.
- D. Non-ferrous metals, except for items specified and/or indicated to be painted.
- E. Finished hardware, excepting hardware that is factory primed.
- F. Surfaces not to be painted shall be left completely free of droppings and accidentally applied materials resulting from the work of this Section.

1.5 QUALITY ASSURANCE

- A. Job Mock-Up
 - 1. In addition to the samples specified herein to be submitted for approval, apply in the field, at their final location, each type and color of approved paint materials, applied 10 feet wide, floor to ceiling of wall surfaces, before proceeding with the remainder of the work, for approval by the Architect. Paint mock-ups to include door and frame assembly.
 - 2. These applications when approved will establish the quality and workmanship for the work of this Section.
 - 3. Repaint individual areas which are not approved, as determined by the Architect, until approval is received. Assume at least two paint mock-ups of each color and gloss for approval.

- B. Qualification of Painters: Use only qualified journeyman painters for the mixing and application of paint on exposed surfaces.
- C. Paint Coordination: Provide finish coats which are compatible with the prime paints used. Review other Sections of these specifications in which prime paints are to be provided to ensure compatibility of the total coatings system for the various substrates. Upon request from other subcontractors, furnish information on the characteristics of the finish materials proposed to be used, to ensure that compatible prime coats are used. Provide barrier coats over incompatible primers or remove and re-prime as required. Notify the Architect in writing of any anticipated problems using the coating systems as specified with substrates primed by others.
- D. All paints must conform to the Volatile Organic Compounds (VOC) standards of prevailing codes and ordinances.

1.6 SUBMITTALS

A. Materials List

1. Before any paint materials are delivered to the job site, submit to the Architect a complete list of all materials proposed to be furnished and installed under this portion of the work.
2. This shall in no way be construed as permitting substitution of materials for those specified or accepted for this work by the Architect.

B. Samples

1. Accompanying the materials list, submit to the Architect copies of the full range of colors available in each of the proposed products.
2. Upon direction of the Architect, prepare and deliver to the Architect two (2) identical sets of Samples of each of the selected colors and glosses painted onto 8-1/2" x 11" x 1/4" thick material; whenever possible, the material for Samples shall be the same material as that on which the coating will be applied in the work.

- C. Manufacturer's Recommendations: In each case where material proposed is not the material specified or specifically described as an acceptable alternate in this Section of these specifications, submit for the Architect's review the current recommended method of application published by the manufacturer of the proposed material.

1.7 PRODUCT HANDLING

- A. Deliver all paint materials to the job site in their original unopened containers with all labels intact and legible at time of use.

B. Protection

1. Store only the approved materials at the job site, and store only in a suitable and designated area restricted to the storage of paint materials and related equipment.
2. Use all means necessary to ensure the safe storage and use of paint materials and the prompt and safe disposal of waste.

3. Use all means necessary to protect paint materials before, during and after application and to protect the installed work and materials of all other trades.
- C. Replacements: In the event of damage, immediately make all repairs and replacements necessary.

1.8 EXTRA STOCK

- A. Upon completion of this portion of the Work, deliver to the Owner an extra stock of paint equaling approximately ten (10) percent of each color and gloss used and each coating material used, with all such extra stock tightly sealed in clearly labeled containers.

1.9 JOB CONDITIONS

- A. Apply water-based paints only when the temperature of surfaces to be painted and the surrounding air temperatures are between 50 degrees F. and 90 degrees F., unless otherwise permitted by the paint manufacturer's printed instructions.
- B. Apply solvent-thinned paints only when the temperature of surfaces to be painted and the surrounding air temperatures are between 45 degrees F. and 95 degrees F. unless otherwise permitted by the paint manufacturer's printed instructions.
- C. Do not apply paint in snow, rain, fog or mist; or when the relative humidity exceeds eighty-five (85) percent; or to damp or wet surfaces; unless otherwise permitted by the paint manufacturer's printed instructions.
- D. Painting may be continued during inclement weather only if the areas and surfaces to be painted are enclosed and heated within the temperature limits specified by the paint manufacturer during application and drying periods.

PART 2 PRODUCTS

2.1 PAINT MANUFACTURERS

- A. Except as otherwise noted, provide the painting products listed for all required painting made by one of the manufacturers listed in the paint schedule (Section 2.4). These companies are PPG Pittsburgh Paints (basis of design on the Interior Color Schedule), Benjamin Moore, Akzo Nobel Paint (Glidden Professional), Sherwin Williams (S-W), and Pratt and Lambert Paint. Comply with number of coats and required minimum mil thicknesses as specified herein.

2.2 MATERIALS

- A. Provide undercoat paint produced by the same manufacturer as the finish coats. Use only thinners approved by the paint manufacturer, and use only to recommended limits.
- B. Colors and Glosses: All colors and glosses shall be as selected by the Architect. Certain colors will require paint manufacturer to prepare special factory mixes to match colors selected by the Architect. Color schedule (with gloss) shall be furnished by the Architect.

- C. Coloring Pigment: Products of or furnished by the manufacturer of the paint or enamel approved for the work.
- D. Linseed Oil: Raw or boiled, as required, of approved manufacture, per ASTM D 234 and D 260, respectively.
- E. Turpentine: Pure distilled gum spirits of turpentine, per ASTM D 13.
- F. Shellac: Pure gum shellac (white or orange) cut in pure denatured alcohol using not less than four (4) lbs. of gum per gallon of alcohol.
- G. Driers, Putty, Spackling Compound, Patching Plaster, etc.: Best quality, of approved manufacture.
- H. Heat Resistant Paint: Where required, use heat resistant paint when applying paint to heating lines and equipment.

2.3 GENERAL STANDARDS

- A. The various surfaces shall be painted or finished as specified below in Article 2.4. However, the Architect reserves the right to change the finishes within the range of flat, semi-gloss or gloss, without additional cost to the Owner.
- B. All paints, varnishes, enamels, lacquers, stains and similar materials must be delivered in the original containers with the seals unbroken and label intact and with the manufacturer's instructions printed thereon.
- C. All painting materials shall bear identifying labels on the containers with the manufacturer's instructions printed thereon.
- D. Paint shall not be badly settled, caked or thickened in the container, shall be readily dispersed with a paddle to a smooth consistency and shall have excellent application properties.
- E. Paint shall arrive on the job color-mixed except for tinting of under-coats and possible thinning.
- F. All thinning and tinting materials shall be as recommended by the manufacturer for the particular material thinned or tinted.
- G. It shall be the responsibility of the Contractor to see that all mixed colors match the color selection made by the Architect prior to application of the coating.
- H. Contractor shall assume that each space requires a minimum of two colors of paint.

2.4 SCHEDULE OF FINISHES

- A. High Performance Coating On Exterior Galvanized Ferrous Metals

First Coat: "27 Typoxy" or "N69 Epoxoline II" by Tnemec; "Intergard 345" by International Protective Coatings; "Carboguard 893 SG" or "Carboguard 888" by Carboline; "Devran 203 WB Epoxy Primer" by Akzo; or "Recoatable Epoxy Primer 867-45" by Sherwin Williams.

Second Coat: "V73 Endura Shield" or "1074/1075" by Tnemec; "Interthane 870UHS" or "990 UHS" by International Protective Coatings; "Carbothane 133 LH" by Carboline; "Devthane 379H Aliphatic Vizethne" by Akzo; or "Hi-Solids Urethane B65-300/350" by Sherwin Williams.

B. High Performance Coating On Exterior Non-Galvanized Ferrous Metals

Prime Coat: "Tneme-Zinc 90/97" by Tnemec; "Interzinc 52" or "315" by International Protective Coatings; "Carbozinc 859, Class B" by Carboline; "Cathacoat 302V Reinforced Inorganic Zinc Primer" by Akzo; or "Zinc Clad II Plus Inorganic Zinc Rich Coating B69V212" by Sherwin Williams.

Second Coat: "27 Typoxy" or "N69 Epoxoline II" by Tnemec; "Intergard 345" by International Protective Coatings; "Carboguard 893 SG" or "Carboguard 888" by Carboline; "Bar-Rust 231V Multi Purpose Epoxy Mastic" by Akzo; or "Macropoxy G46 I.C. Epoxy B58-600" by Sherwin Williams.

Third Coat: "V73 Endura Shield" or "1074/1075" by Tnemec; "Interthane 870UHS" or "990 UHS" by International Protective Coatings; "Carbothane 133 LH" by Carboline; "Devthane 379H Aliphatic Urethane" by Akzo; or "Hi-Solids Polyurethane B65-300/350" by Sherwin Williams.

C. Interior Ferrous Metal

Semi-Gloss Finish/Alkyd

Primer: 1 coat B.M. Iron Clad Alkyd Low Lustre Metal & Wood Enamel (363)
1 coat S-W Pro Mar 200 Alkyd Enamel Undercoater B49W200
First Coat: 1 coat Moorcraft Super Spec Alkyd Semi-Gloss Enamel (C271)
1 coat S-W Pro Mar 200 Alkyd Semi-Gloss, B34W200
Second Coat: 1 coat Moorcraft Super Spec Alkyd Semi-Gloss Enamel (C271)
1 coat S-W Pro Mar 200 Alkyd Semi-Gloss, B34W200
a. Total DFT not less than: 4.0 mils

D. Interior Concrete Block

Eggshell Finish/Vinyl Acrylic Latex over Filler

Block Filler: 1 coat Moorcraft Super Craft Latex Block Filler (285)
1 coat Akzo Glidden Professional Concrete Coatings Block Filler GP 3010-1200
1 coat S-W Preprite Block Filler, B25W25
1 coat Pratt and Lambert; Pro Hide Silver Interior/Exterior Latex Block Filler Z8485
First Coat: 1 coat Regal AquaVelvet (319)
1 coat Akzo Glidden Professional Diamond 350 Acrylic Eggshell 6P1403
1 coat S-W Pro Green 200 Interior Latex Flat Eggshell, B20-600
1 coat Pratt and Lambert; Pro Hide Gold Interior Latex Eggshell Z8200
Second Coat: 1 coat Regal AquaVelvet (319)
1 coat Akzo Glidden Professional Diamond 350 Acrylic Eggshell 6P1403

- 1 coat S-W Pro Green 200 Interior Latex Flat Eggshell, B30-600
- 1 coat Pratt and Lambert; Pro Hide Gold Interior Latex Eggshell Z8200
- a. Total DFT not less than: 10.9 mils

Epoxy Paint: Provide one of the following over block filler recommended by manufacturer of paint:

Benjamin Moore; IMC Polyamide Epoxy Semi-Gloss (M36/M38)
ICI Paints; Devco Coatings, Tru Glaze WB Epoxy Semi-Gloss Coating, 4406

E. Interior Drywall and Plaster

Flat Finish/Vinyl Acrylic Latex

- Primer: 1 coat Regal FirstCoat (216)
- 1 coat Akzo Glidden Professional Gripper GP 3210
- 1 coat S-W Promar 200 Interior Latex Primer
- 1 coat Pratt & Lambert Pro Hide Gold Interior Latex Wall Primer Z8160
- First Coat: 1 coat Regal Wall Satin (215)
- 1 coat Akzo Glidden Professional Diamond 350 Flat GP 1201
- 1 coat S-W Pro Green 200 Interior Latex Flat, B30-600
- 1 coat Pratt & Lambert; Pro Hide Gold Interior Latex Flat Z8100
- Second Coat: 1 coat Regal Wall Satin (215)
- 1 coat Akzo Glidden Professional Diamond 350 Flat GP 1201
- 1 coat S-W Promar 200 Interior Latex Flat, B30-2600
- 1 coat Pratt & Lambert; Pro Hide Gold Interior Latex Flat Z8100
- a. Total DFT not less than: 3.6 mils

Eggshell Finish/Vinyl Acrylic Latex

- Primer: 1 coat Regal FirstCoat (216)
- 1 coat Akzo Glidden Professional Gripper GP 3210
- 1 coat S-W Pro Green 200 Interior Latex Primer, B28-600
- 1 coat Pratt & Lambert Pro Hide Gold Interior Latex Wall Primer Z8160
- First Coat: 1 coat Regal AquaVelvet (319)
- 1 coat Akzo Glidden Professional Diamond 350 Acrylic Eggshell GP 1403
- 1 coat S-W Pro Green 200 Interior Latex Egg-Shell, B20-600
- 1 coat Pratt & Lambert; Pro Hide Gold Interior Latex Eggshell Z8200
- Second Coat: 1 coat Regal AquaVelvet (319)
- 1 coat Akzo Glidden Professional Diamond 350 Acrylic Eggshell GP 1403
- 1 coat S-W Pro Green 200 Interior Latex Egg-Shell, B20-600
- 1 coat Pratt & Lambert; Pro Hide Gold Interior Latex Eggshell Z8200
- a. Total DFT not less than: 3.8 mils

Semi-Gloss Finish/ Acrylic Epoxy

- Primer: 1 coat Benjamin Moore I. M. C. Waterborne Epoxy Primer (M08/M09)
- 1 coat S-W Water-Based Epoxy Primer (B70W100)
- First Coat: 1 coat Benj. Moore I. M. C. Polyamide Epoxy Semi-Gloss (M43/M4486)
- 1 coat S-W Water-Based Catalyzed Epoxy (B70)
- Second Coat: 1 coat Benj. Moore I. M. C. Polyamide Epoxy Semi-Gloss (M43/M4486)
- 1 coat S-W Water-Based Catalyzed Epoxy (B70)

F. Primer for Paperless Drywall (Mold Resistant):

1 coat Golden Prep and Primer Gripper Multi-Purpose Interior/Exterior Water Based Primer Sealer 3210-1200
1 coat Pratt & Lambert "Suprime" Interior Latex Enamel Undercoater Z1013/F1013
1 coat Sherwin Williams "Builders Solution"
1 coat Benjamin Moore 046 Fresh Start Acrylic Superior Primer

G. Interior Painted Wood:

Satin Finish/Latex

Primer: 1 coat Moore's Fresh Start 023
1 coat Akzo Glidden Professional Gripper GP 3210
1 coat S-W Premium Wall and Wood Primer B28W111
1 coat Pratt and Lambert Suprime Interior/Exterior 100% Acrylic Multi Purpose Primer Z1001
First Coat: 1 coat Waterborne Satin Impervo 314
1 coat Akzo Glidden Professional Diamond 350 Acrylic Eggshell GP 1403
1 coat S-W Pro Green 200 Interior Latex Egg-Shell, B20-600
1 coat Pratt and Lambert; Pro Hide Gold Interior Latex Satin Z9490
Second Coat: 1 coat Waterborne Satin Impervo 314
1 coat Akzo Glidden Professional Diamond 350 Acrylic Eggshell GP 1403
1 coat S-W Pro Green 200 Interior Latex Egg-Shell, B20-600
1 coat Pratt and Lambert; Pro Hide Gold Interior Latex Satin Z9490
a. Total DFT not less than: 4.0 mils

Semi-Gloss Finish/Latex

Primer: 1 coat Moore's Fresh Start 023
1 coat Akzo Glidden Professional Gripper GP 3210
1 coat S-W Premium Wall and Wood Primer B28W111
1 coat Pratt and Lambert Suprime Interior/Exterior 100% Acrylic Multi Purpose Primer Z1001
First Coat: 1 coat Moore's Regal AquaGlo 333
1 coat Akzo Glidden Professional Diamond 350 Acrylic S/G GP 1407
1 coat S-W Pro Green 200 Interior Latex S. Gloss, B31-600
1 coat Pratt and Lambert Pro Hide Gold Interior Latex Semi-Gloss Z8300
Second Coat: 1 coat Moore's Regal AquaGlo 333
1 coat Akzo Glidden Professional Diamond 350 Acrylic S/G GP 1407
1 S-W Pro Green 200 Interior Latex S. Gloss, B31-600
1 coat Pratt & Lambert Pro Hide Gold Interior Latex Semi-Gloss Z8300
a. Total DFT not less than: 3.8 mils

H. Concrete Floor Sealer: "Super Diamond VOX" by Euclid Chemical Company, or approved equal.

2.5 EXISTING SURFACES TO BE PAINTED

A. Existing surfaces shall be painted in accordance with schedule given in Article 2.4 herein except that first or prime coat may be eliminated where existing paint is sound.

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Where existing paint must be removed down to base material, provide first or prime coat as specified.

2.6 PIPING AND MECHANICAL EQUIPMENT EXPOSED TO VIEW

- A. Paint all exposed piping, conduits, ductwork and mechanical and electrical equipment. Use heat resisting paint when applied to heating lines and equipment. The Contractor is cautioned not to paint or otherwise disturb moving parts in the mechanical systems. Mask or otherwise protect all parts as required to prevent damage.
- B. Exposed Uncovered Ductwork, Piping, Hangers and Equipment: Latex Enamel Undercoater and one (1) coat Acrylic Latex Flat.
- C. Exposed Covered Piping, Duct Work and Equipment: Primer/Sealer and one (1) coat Acrylic Latex Flat.
- D. Panel Boards, Grilles and Exposed Surfaces of Electrical Equipment: Latex Enamel Undercoater and two (2) coats Latex Semi-Gloss.
- E. Equipment or Apparatus with Factory-Applied Paint: Refinish any damaged surfaces to match original finish. Do not paint over name plates and labels.
- F. All surfaces of insulation and all other work to be painted shall be wiped or washed clean before any painting is started.
- G. All conduit, boxes, distribution boxes, light and power panels, hangers, clamps, etc., are included where painting is required.
- H. All items of Mechanical and Electrical trades which are furnished painted under their respective Contracts shall be carefully coordinated with the work of this Section so as to leave no doubt as to what items are scheduled to be painted under this Section.

PART 3 EXECUTION

3.1 INSPECTION

- A. Examine the areas and conditions where painting and finishing are to be applied and correct any conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions are corrected to permit proper installation of the work.

3.2 GENERAL WORKMANSHIP REQUIREMENTS

- A. Only skilled mechanics shall be employed. Application may be by brush or roller. Spray application only upon acceptance from the Architect in writing.
- B. The Contractor shall furnish the Architect a schedule showing when he expects to have completed the respective coats of paint for the various areas and surfaces. This schedule shall be kept current as the job progresses.
- C. The Contractor shall protect his work at all times, and shall protect all adjacent work and materials by suitable covering or other method during progress of his work. Upon completion of the work, he shall remove all paint and varnish spots from floors, glass

and other surfaces. He shall remove from the premises all rubbish and accumulated materials of whatever nature not caused by others and shall leave his part of the work in clean, orderly and acceptable condition.

- D. Remove and protect hardware, accessories, device plates, lighting fixtures, and factory finished work, and similar items, or provide ample in place protection. Upon completion of each space, carefully replace all removed items by workmen skilled in the trades involved.
- E. Remove electrical panel box covers and doors before painting walls. Paint separately and re-install after all paint is dry.
- F. All materials shall be applied under adequate illumination, evenly spread and flowed on smoothly to avoid runs, sags, holidays, brush marks, air bubbles and excessive roller stipple.
- G. Coverage and hide shall be complete. When color, stain, dirt or undercoats show through final coat of paint, the surface shall be covered by additional coats until the paint film is of uniform finish, color, appearance and coverage, at no additional cost to the Owner.
- H. All coats shall be dry to manufacturer's recommendations before applying succeeding coats.
- I. All suction spots or "hot spots" in plaster after the application of the first coat shall be touched up before applying the second coat.

3.3 PREPARATION OF SURFACES

- A. Existing Surfaces: Clean existing surfaces requiring paint or finishing, remove all loose and flaking paint or finish and sand surface smooth as required to receive new paint or finish. No "telegraphing" of lines, ridges, flakes, etc., through new surfacing is permitted. Where this occurs, Contractor shall be required to sand smooth and re-finish until surface meets with Architect's approval.
- B. General
 - 1. The Contractor shall be held wholly responsible for the finished appearance and satisfactory completion of painting work. Properly prepare all surfaces to receive paint, which includes cleaning, sanding, and touching-up of all prime coats applied under other Sections of the work. Broom clean all spaces before painting is started. All surfaces to be painted or finished shall be perfectly dry, clean and smooth.
 - 2. Perform all preparation and cleaning procedures in strict accordance with the paint manufacturer's instructions and as herein specified, for each particular substrate condition.
 - 3. Clean surfaces to be painted before applying paint or surface treatments. Remove oil and grease with clean cloths and cleaning solvents prior to mechanical cleaning. Program the cleaning and painting so that dust and other contaminants from the cleaning process will not fall in wet, newly painted surfaces.

C. Metal Surfaces

1. Weld Fluxes: Remove weld fluxes, splatters, and alkali contaminants from metal surfaces in an approved manner and leave surface ready to receive painting.
2. Bare Metal: Thoroughly clean off all foreign matter such as grease, rust, scale and dirt before priming coat is applied. Clean surfaces, where solder flux has been used, with benzene. Clean surfaces by flushing with mineral spirits. For aluminum surfaces, wipe down with an oil free solvent prior to application of any pre-treatment.
 - a. Bare metal to receive high performance coating specified herein must be blast cleaned SSPC SP-6 prior to application if field applied primer; coordinate with steel trades furnishing ferrous metals to receive this coating to insure that this cleaning method is followed.
3. Shop Primed Metal: Clean off foreign matter as specified for "Bare Metal." Prime bare, rusted, abraded and marred surfaces with approved primer after proper cleaning of surfaces. Sandpaper all rough surfaces smooth.
4. Galvanized Metal: Prepare surface as per the requirements of ASTM D 6386.
5. Metal Filler: Fill dents, cracks, hollow places, open joints and other irregularities in metal work to be painted with an approved metal filler suitable for the purpose and meeting the requirements of the related Section of work; after setting, sand to a smooth, hard finish, flush with adjoining surface.

- D. Plaster Surfaces: Scrape off all plaster nibs or other projections and sand smooth or finish to match adjoining surface texture. Cut out all scratches, cracks, holes, depressions and similar voids and fill with non-shrinking grout, spackles, patching plaster or other approved patching material; allow to dry, refill if necessary, then sand smooth (or refinish) to provide a flush, smooth surface of the same texture as the adjacent plaster surface.

1. Allow at least 28 days, from installation of final plaster coat, before starting work.

- E. Gypsum Drywall Surfaces: Scrape off all projections and splatters, spackles all holes or depressions, including taped and spackled joints, sand smooth. Conform to standards established in Section 092116, "Gypsum Board Assemblies."
- F. Wood Surfaces: Sand to remove all roughness, loose edges, splinters, or splinters and then brush to remove dust. Wash off grease or dirt with an approved cleaner. Fill all cracks, splits, nail holes, screw holes, and surface defects with putty after the priming coat has been applied. Putty shall be brought up flush with the surface and sanded smooth and touched-up with primer when dry.
- G. Block Masonry Surfaces: Thoroughly clean off all grit, grease, dirt mortar drippings or splatters, and other foreign matter. Remove nibs or projections from masonry surfaces. Fill cracks, holes or voids, not filled under the "Masonry" Section, with Portland cement grout, and bag surface so that it has approximately the same texture as the adjacent masonry surface.

- H. Testing for Moisture Content: Contractor shall test all plaster, masonry, and drywall surfaces for moisture content using a reliable electronic moisture meter. Contractor shall also test latex type fillers for moisture content before application of top coats of paint. Do not apply any paint or sealer to any surface or to latex type filler where the moisture content exceeds seven (7) percent as measured by the electronic moisture meter.
- I. Touch-Up: Prime paint all patched portions in addition to all other specified coats.

3.4 MATERIALS PREPARATION

- A. Mix and prepare painting materials in strict accordance with the manufacturer's directions.
- B. Store materials not in actual use in tightly covered containers. Maintain containers used in storage, mixing, and application of paint in a clean condition, free of foreign materials and residue.
- C. Stir all materials before application to produce a mixture of uniform density, and as required during the application of the materials. Do not stir any film which may form on the surface into the material. Remove the film and, if necessary, strain the material before using.
- D. Tint each undercoat a lighter shade to facilitate identification of each coat where multiple coats of the same material are to be applied. Tint undercoats to match the color of the finish coat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.

3.5 APPLICATION

- A. General
 - 1. Apply paint by brush or roller in accordance with the manufacturer's directions. Use brushes best suited for the type of material being applied. Use rollers of carpet, velvet back, or high pile sheep's wool as recommended by the paint manufacturer for material and texture required.
 - 2. The number of coats and paint film thickness required is the same regardless of the application method. Do not apply succeeding coats until the previous coat has completely dried. Sand between each enamel or varnish coat application with fine sandpaper, or rub surfaces with pumice stone where required to produce an even, smooth surface in accordance with the coating manufacturer's directions.
 - 3. Apply additional coats when undercoats, stains, or other conditions show through the final coat of paint, until the paint film is of uniform finish, color and appearance. Give special attention to insure that all surfaces, including edges, corners, crevices, welds, and exposed fasteners receive a film thickness equivalent to that of flat surfaces.
 - 4. Paint surfaces behind movable equipment and furniture the same as similar exposed surfaces. Paint surfaces behind permanently fixed equipment or furniture with prime coat only.

- a. "Exposed surfaces" is defined as those areas visible when permanent or built-in fixtures, convactor covers, covers for finned tube radiation, grilles, etc., are in place in areas scheduled to be painted.
5. Paint interior surfaces of ducts, where visible through registers or grilles, with a flat, non-specular black paint, before final installation of equipment.
6. Paint the back sides of access panels, removable or hinged covers to match the exposed surfaces.
7. Finish doors on tops, bottoms, and side edges the same as the faces, unless otherwise indicated.
8. Enamel finish applied to wood or metal shall be sanded with fine sandpaper and then cleaned between coats to produce an even surface.
9. Paste wood filler applied on open grained wood after beginning to flatten, shall be wiped across the grain of the wood, then with a circular motion, to secure a smooth, filled, clean surface with filler remaining in open grain only. After overnight dry, sand surface with the grain until smooth before applying specified coat.

B. Scheduling Painting

1. Apply the first coat material to surfaces that have been cleaned, pre-treated or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.
 2. Allow sufficient time between successive coatings to permit proper drying. Do not re-coat until paint has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure, and the application of another coat of paint does not cause lifting or loss of adhesion of the undercoat.
- C. Prime Coats: Re-coat primed and sealed walls and ceilings where there is evidence of suction spots or unsealed areas in first coat, to assure a finish coat with no burn-through or other defects due to insufficient sealing.
- D. Pigmented (Opaque) Finishes: Completely cover to provide an opaque, smooth surface of uniform finish, color, appearance and coverage.
- E. "Touching-Up" of Factory Finishes: Unless otherwise specified or shown, materials with a factory finish shall not be painted at the project site. To "touch-up," the Contractor shall use the factory finished material manufacturer's recommended paint materials to repair abraded, chipped, or otherwise defective surfaces.

3.6 PROTECTION

- A. Protect work of other trades, whether to be painted or not, against damage by the painting and finishing work. Leave all such work undamaged. Correct any damages by cleaning, repairing or replacing, and repainting, as acceptable to the Architect.

- B. Provide "Wet Paint" signs as required to protect newly painted finishes. Remove temporary protective wrappings provided by others for protection of their work after completion of painting operations.

3.7 CLEAN UP

- A. During the progress of the work, remove from the site all discarded paint materials, rubbish, cans and rags at the end of each work day.
- B. Upon completion of painting work, clean window glass and other paint spattered surfaces. Remove spattered paint by proper methods of washing and scraping, using care not to scratch or otherwise damage finished surfaces.
- C. At the completion of work of other trades, touch-up and restore all damaged or defaced painted surfaces.

END OF SECTION