

SECTION 09 91 00 – PAINTING

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Furnish all material, labor, scaffolding and equipment required to complete all work shown on the Drawings and specified herein.
- B. Paint all exposed surfaces except where the natural finish of the material is obviously intended and specifically noted as a surface not to be painted. Where items or surfaces are not specifically mentioned, paint these the same as adjacent similar materials or areas.
- C. Do not paint any moving parts of operating units, mechanical and electrical parts, such as valve and damper operators, linkages, sensing devices, motor and fan shafts unless otherwise indicated.
- D. Do not paint any code required labels such as Underwriter's Laboratories and Factory Mutual or any equipment identification, performance rating, name or nomenclature plates.
- E. Where rooms are shown in the finish schedule to have unfinished walls and ceilings, metal doors and frames and other miscellaneous items in these spaces.

1.02 WORK SPECIFIED ELSEWHERE

- A. Unless otherwise specified, shop priming of ferrous metal items is included under the various sections for structural steel, miscellaneous metal, hollow metal work and similar items. Also for fabricated or factory built mechanical and electrical equipment or accessories.
- B. If painting of exposed piping, conduit, ductwork, insulated piping, equipment, and other mechanical or electrical work in mechanical rooms is required it shall be by the Mechanical and Electrical Contractors.
- C. Labeling of piping conduit.
- D. Concealed surfaces unless otherwise specified do not require painting. This includes walls and ceilings in inaccessible spaces such as pipe chases, furred areas, duct shafts, etc.

1.03 PRODUCT HANDLING

- A. Deliver all materials to the job site in original, new and unopened packages and containers bearing manufacturer's name and label showing at least the following:
 - 1. Name or title of the material
 - 2. Fed. Spec. number, if applicable

3. Manufacturer's stock number
 4. Manufacturer's name
 5. Contents by volume for major constituents
 6. Thinning instructions
 7. Application instructions
- B. Provide proper storage to prevent damage to, and deterioration of, paint materials.
- C. Use all means necessary to protect the materials of this section before, during, and after installation and to protect the work and materials of all other trades.
- D. In the event of damage, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.

1.04 JOB CONDITIONS

- A. Surface temperatures: Do not apply solvent-thinned paints when the temperature of surfaces to be painted and the surrounding air temperature are below 45 degrees F, unless otherwise permitted by the manufacturer's printed instructions as approved by the Architect.
- B. Weather conditions: Do not apply paint in snow, rain, fog, or mist; or when the relative humidity exceeds 85%; or to damp or wet surfaces, unless otherwise permitted by the manufacturer's printed instructions as approved by the Architect. Applications may be continued during inclement weather within the temperature limits specified by the paint manufacturer during application and drying periods.

1.05 SUBMITTALS

- A. Submit manufacturer's printed brochures showing the type of materials to be used for each painting system.

1.06 SAMPLES

- A. Before starting work, apply a sample of each color selected on at least 200 square feet of actual surface where color is to be used. Do not proceed with painting until samples are approved by Architect.

PART 2 - PRODUCTS

2.01 PAINT MATERIALS

- A. Design is based on use of paint products manufactured by Sherwin-Williams and the materials of that manufacturer are named in the Painting Schedule. Equal products of Benjamin Moore, Kelly-Moore and Pittsburgh Paints (PPG) are approved in advance by the Architect, and may be substituted for those shown.
- B. Provide the best quality grade of the various types of coatings as regularly manufactured by paint materials manufacturers approved by the Architect.

Materials not displaying the manufacturer's identification as a standard best-grade product will not be accepted.

- C. Provide paints of durable and washable quality. Do not use paint materials which will not withstand normal washing as required to remove pencil marks, ink, ordinary soil, and similar material without showing discoloration, loss of gloss, staining, or other damage.
- D. The Architect will select colors to be used in the various types of paint specified and will be the sole judge of acceptability of the various glosses obtained from the materials proposed to be used in the work.
- E. Provide undercoat paint produced by the same manufacturer as the finish coat. Use only the thinners recommended by the paint manufacturer and use only to the recommended limits. Insofar as practicable, use undercoat, finish coat, and thinner material as parts of a unified system of paint finish.
- F. Provide paint materials which meet or exceed the standards listed for each application in the Painting Schedule in Paragraph 3.5.

2.02 APPLICATION EQUIPMENT

- A. For application of the approved paint, use only such equipment as is recommended for application of the particular paint by the manufacturer of the particular paint, and as approved by the Architect.
- B. Prior to actual use of application equipment, use all means necessary to verify that the proposed equipment is actually compatible with the material to be applied and that the integrity of the finish will not be jeopardized by use of the proposed application equipment.

2.03 OTHER MATERIALS

- A. All other materials, not specifically described but required for a complete and proper installation of the work of this Section, shall be new, first-quality of their respective kinds, and as selected by the Contractor subject to the approval of the Architect.

PART 3 - EXECUTION

3.01 SURFACE CONDITIONS

- A. Prior to installation of the work in this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly commence. Verify that painting may be completed in strict accordance with the original design and with the manufacturer's recommendations as approved by the Architect.

- B. Do not proceed in areas of discrepancy until all such discrepancies have been fully resolved.

3.02 MATERIALS PREPARATION

- A. Mix and prepare painting materials in strict accordance with the manufacturer's recommendations as approved by the Architect.
- B. Store materials not in actual use in tightly covered containers.
- C. Maintain containers used in storage, mixing, and application of paint in a clean condition, free from foreign materials and residue.
- D. Stir all materials before application to produce a mixture of uniform density, and as required during the application of materials. Do not stir into the material any film which may form on the surface. Remove the film and, if necessary, strain the material before using.

3.03 SURFACE PREPARATION

- A. General:
 - 1. Perform all preparation and cleaning procedures in strict accordance with the paint manufacturer's recommendations as approved by the Architect.
 - 2. Remove all removable items which are in place and are not scheduled to receive paint finish, or provide surface-applied protection prior to surface preparation and painting operations.
 - 3. Following completion of painting in each space or area, reinstall the removed items by using workmen skilled in the necessary trades.
 - 4. Clean each surface to be painted prior to applying paint or surface treatment.
 - 5. Remove oil and grease with clean cloths and cleaning solvents of low toxicity and a flash point in excess of 100° F prior to start of mechanical cleaning.
 - 6. Schedule the cleaning and painting so that dust and other contaminants from the cleaning process will not fall onto wet, newly painted surfaces.
- B. Preparation of wood surfaces:
 - 1. Clean all wood surfaces until they are free from dirt, oil, and all other foreign substance.
 - 2. Smooth all finished wood surfaces exposed to view, using the proper sandpaper. Where so required, use varying degrees of coarseness in sandpaper to produce a uniformly smooth and unmarred wood surface.
 - 3. Unless specifically approved by the Architect, do not proceed with painting of wood surfaces until the moisture content of the wood is 12% or less as measured by a moisture-meter approved by the Architect.
 - 4. Prime, stain, or seal wood required to be job-painted immediately upon delivery to job. Prime edges, ends, face, undersides, and backsides of such wood, including cabinets, counters, etc. When transparent finish is required, use spar varnish for backpriming.

C. Preparation of metal surfaces:

1. Thoroughly clean all surfaces until they are completely free from dirt, oil and grease.
2. On galvanized surfaces, use solvent for the initial cleaning and then treat the surface thoroughly with phosphoric acid etch. Remove all etching solution before proceeding.
3. Touch-up shop-applied prime coats wherever damaged, dirty, or bare (all steel). Wire-brush, solvent clean, and touch-up with same type shop primer.
4. Allow to dry thoroughly before application of paint.

D. Preparation of Cementitious Materials:

1. Prepare cementitious surfaces of concrete and concrete block to be painted by removing all efflorescence, chalk, dust, dirt, grease, oils, and by roughening as required to remove glaze.
2. Determine the alkalinity and moisture content of the surfaces to be painted by performing appropriate tests. If the surfaces are found to be sufficiently alkaline to cause blistering and burning of the finish paint, correct this condition before application of paint. Do not paint over surfaces where the moisture content exceeds that permitted in the manufacturer's printed directions.

3.04 PAINT APPLICATION

A. General:

1. Slightly vary the color of succeeding coats. Do not apply additional coats until the complete coat has been inspected and approved. Only the inspected and approved coats of paint will be considered in determining the number of coats applied.
2. Sand and dust between enamel coats to remove all defects visible to the unaided eye from a distance of five feet.
3. On all removable panels and all hinged panels, paint the back sides to match the exposed sides.
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.
5. Paint interior surfaces of ducts, where visible through registers or grilles, with a flat, non-specular black paint, before final installation of equipment.

B. Drying: Allow sufficient drying time between coats. Modify the period as recommended by the material manufacturer to suit adverse weather conditions.

1. Oil-base and oleo-resinous solvent-type paints shall be considered dry for recoating when the paint feels firm, does not deform or feel sticky under moderate pressure of the thumb, and the application of another coat of paint does not cause lifting or loss of adhesion of the undercoat.

- C. Brush application: Brush out and work all brush coats onto the surfaces in an even film. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, and other surface imperfections will not be acceptable.
- D. Spray application: Confine spray application to metal framework and similar surfaces where hand brush work would be inferior. Wherever spray application is used, apply each coat to provide the equivalent hiding of brush-applied coats. Do not double back with spray equipment for the purpose of building up film thickness of two coats in one pass unless noted otherwise in this specification.
- E. Roller Application: Limit roller application to interior wall and ceiling finishes for second and third coats. Apply each roller coat to provide equivalent hiding as brush-applied coats.
- F. Completed work: Completed work shall match the approved samples for color, texture, and coverage. Remove, refinish, or repaint all work not in compliance with specified requirements.

3.05 PAINTING SCHEDULE

- A. General: Painting required under this section is called for on the drawings. Paint types are defined below.
- B. Exterior Paint Systems: Provide the following finish coating system for the various substrates as shown and herein specified.
 - 1. Exterior Satin Enamel: Apply to all primed or sealed exterior smooth wood surfaces.

1st Coat: S-W Exterior Latex Wood Primer # B42W8041
2nd Coat: S-W A-100 Exterior Latex Satin # A82-Series
3rd Coat: S-W A-100 Exterior Latex Satin # A82-Series
 - 2. Exterior Egg-Shell Enamel: Apply to all primed or sealed exterior metal surfaces including exterior and interior side of exterior hollow metal doors and frames.

1st Coat: S-W Pro Industrial Pro-Cryl Universal Primer # B66-1300 Series
2nd Coat: S-W Pro Industrial Acrylic Eg-Shel # B66-1661 Series
3rd Coat: S-W Pro Industrial Acrylic Eg-Shel # B66-1661 Series
- C. Interior Paint Systems: Provide the following finish coating systems for the various substrates as shown on the Finish Schedule and herein specified.
 - 1. Paint 'A' Egg-Shell Latex Enamel: Apply to interior gypsum board where Paint 'A' is scheduled.

1st Coat: S-W ProMar® 200 Zero VOC Interior Latex Primer # B28W2600
2nd Coat: S-W ProMar® 200 Zero VOC Latex Eg-Shel # 20-2600 Series

2. Paint 'B', Flat latex wall paint: Apply to interior gypsum board and other surfaces where Paint 'B' finish is scheduled. Paint all gypsum board ceilings and furrdowns with Paint 'B'.

1st Coat: S-W ProMar® 200 Zero VOC Interior Latex Primer # B28W2600
2nd Coat: S-W ProMar® 200 Zero VOC Latex Flat # B30-2600 Series
3. Paint 'C': Water based catalyzed epoxy semi-gloss. Apply to interior gypsum board and lightweight concrete block where Paint 'C' is scheduled.

1st Coat: S-W ProMar® 200 Zero VOC Interior Latex Primer # B28W2600
(4 mils wet, 1.1 mils dry per coat)
2nd Coat: S-W Pro Industrial Pre-Catalyzed Waterbased Epoxy Semi-Gloss, K46-1150 Series
3rd Coat: S-W Pro Industrial Pre-Catalyzed Waterbased Epoxy Semi-Gloss, K46-1150 Series (4 mils wet, 1.5 mils dry per coat)
4. Paint 'D' Alkyd Resin Enamel: Apply to primed interior ferrous metal surfaces including door frames.

1st Coat: S-W Pro Industrial Pro-Cryl Universal Primer # B66-310 Series
(5-10 mils wet, 2-4 mils dry)
2nd Coat: S-W Pro Industrial WB Alkyd Urethane Semi-Gloss, B53-1150 Series
3rd Coat: S-W Pro Industrial WB Alkyd Urethane Semi-Gloss, B53-1150 Series (4 mils wet, 1.4 mils dry per coat)
5. Paint 'E' Dry-Fog: Apply to all surfaces where Paint 'E' is scheduled.

1st Coat: S-W Pro Industrial Pro-Cryl Universal Primer # B66-1300 Series
(5-10 mils wet, 2-4 mils dry)
2nd Coat: S-W Pro Industrial Waterborne Acylic Dryfall, B42W82
3rd Coat: S-W Pro Industrial Waterborne Acylic Dryfall, B42W82
(6 mils wet, 2 mils dry)
6. Paint 'F': Apply to all concrete floor surfaces where Paint 'F' is scheduled.

1st Coat: S-W ArmorSeal Tread-Plex Primer, B90 Series
(1.5-2 mils dry)
2nd Coat: S-W ArmorSeal Tread-Plex Finish, B90 Series
3rd Coat: S-W ArmorSeal Tread-Plex Finish, B90 Series
(3.5 mils wet, 1.5 mils dry)
7. Paint 'G' Egg-Shell Latex Enamel: Apply to interior wood where Paint 'G' is scheduled.

1st Coat: S-W Premium Wall & Wood Latex Primer # B28W8111
2nd Coat: S-W ProMar® 200 Acrylic-Alkyd Eg-Shel # B33W8251

D. Transparent Finishes:

1. Transparent Varnish Finish: Apply paste wood filler to open grained woods before finishing. Use stain to tone wood filler as required to match stained wood.
2. Alkyd Resin Varnish: Apply to interior surfaces where natural transparent finishes are required, including trim.

1st Coat: S-W Minwax Performance Series Interior Stain 7150/7151
2nd Coat: S-W Minwax Performance Series Fast-Dry Varnish 9150/9151 Series
3rd Coat: S-W Minwax Performance Series Fast-Dry Varnish 9150/9151 Series
3. Exterior Transparent Stain: Apply to exterior wood soffits, glu-lams and trim.
1st Coat: PPG Proluxe SRD, transparent or semi-transparent finish.

F. Finish Locations:

1. Paint systems to be used in various locations are generally shown on the Finish Schedule.
2. In rooms where the schedule does not call for a finish, paint metal door frames, metal doors, and other items applied to, or installed in, the walls.

END OF SECTION