

## SECTION 09 9100 - PAINTING

## PART 1- GENERAL

## 1.1 SUMMARY

- A General: Paint and finish all exposed surfaces using the combination of materials listed on Painting Schedule in Part 3 of this Section, as specified herein, and as needed for a complete and proper installation.
- 1 Surface preparation, priming, and painting specified in this Section are in addition to shop priming and surface treatment specified in other sections.
  - 2 Paint exposed surfaces whether or not colors are designated in schedules. Paint exposed surfaces to match adjacent materials or areas, in the color selected by the Architect.
- B Work Included: The following list is not totally inclusive and does not exclude work not stated herein but required to be painted in the specifications, Finish Schedule, and drawings. Unless otherwise specified, work to be painted under this Section includes, but is not limited to:
- 1 Work specifically noted as requiring a paint finish in the drawings and specifications, and on the Finish Schedule.
  - 2 Priming of gypsum board and CMU substrates for fiberglass reinforced panels.
  - 3 Wood doors.
  - 4 Cement plaster.
  - 5 Gypsum board.
  - 6 Exposed surfaces of glazing stops, including those visible after glazing is installed.
  - 7 Exposed mechanical items including:
    - a Piping, pipe hangers, and supports.
    - b Tanks.
    - c Ductwork and insulation.
    - d Mechanical equipment, and supports.
    - e Accessory items.
  - 8 Exposed electrical conduit, raceways, fittings, panels, and switchgear.
- C Work Not Included:
- 1 Unless otherwise indicated, painting is not required on surfaces in concealed areas and inaccessible areas such as furred spaces, foundation spaces, utility tunnels, pipe spaces, and duct shafts.
  - 2 Metal surfaces of anodized aluminum, stainless steel, chromium plate, copper, bronze, and similar finished materials will not require painting under this Section except as may be so specified.
  - 3 Do not paint moving parts of operating units; mechanical or electrical parts such as valve operators; linkages; sensing devices; and motor shafts, unless otherwise indicated.
  - 4 Do not paint over required labels or equipment identification, performance rating, name, or nomenclature plates.
  - 5 Do not paint concrete which has been sandblasted unless specifically noted for painting.
  - 6 Do not paint galvanized gratings.
- D Related Sections:
- 1 Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division I of these Specifications.
  - 2 Priming or priming and finishing of certain surfaces may be specified to be factory-performed or installer-performed under pertinent other Sections.
  - 3 Section 09 9600: Painting of exposed exterior steel with special paint coatings.
- E Definitions: "Paint," as used herein, means coating systems materials including primers, emulsions, epoxy, enamels, sealers, fillers, and other applied materials whether used as prime, intermediate, or finish coats.

## 1.2 SUBMITTALS

- A. General: Submit in accordance with Section 013300.
  - 1. Product Data: Submit manufacturer's descriptive literature and product specifications for each product. Include data to indicate compliance with the specified requirements.
  - 2. Installation Procedures: Submit manufacturer's recommended installation procedures.
  - 3. Samples: Following the selection of colors and glosses by the Architect, submit Samples for the Architect's review.
    - a. Provide four Samples of each color and each gloss for each material on which the finish is specified to be applied, approximately 8" x 10" in size.
    - b. Provide wood stain samples on specified wood for color selection or approval.
    - c. If so directed by Architect, submit Samples during progress of the Work in the form of actual application of the approved materials on actual surfaces to be painted.
    - d. Revise and resubmit each Sample as requested until the required gloss, color, and texture is achieved. Such Samples, when approved, will become standards of color and finish for accepting or rejecting the work of this Section.
    - e. Do not commence finish painting until approved Samples are on file at the job site.
- B. Contract Closeout Submittals: Manufacturer's recommended cleaning procedures.

## 1.3 QUALITY ASSURANCE

- A. Comply with applicable codes and regulations of governmental agencies having jurisdiction, including those having jurisdiction over airborne emissions and industrial waste disposal. Where those requirements conflict with this specification, comply with the more stringent provisions.
- B. Paint Coordination:
  - 1. Provide finish coats which are compatible with the prime coats actually used and specified.
  - 2. Review other Sections of these Specifications as required, verifying the prime coats to be used and assuring compatibility of the total coating system for the various substrata.
  - 3. Upon request, furnish information on the characteristics of the specific finish materials to assure that compatible prime coats are used.
  - 4. Provide barrier coats over noncompatible primers, or remove the primer and reprime as required.
  - 5. Notify the Architect in writing of anticipated problems in using the specified coating systems over prime-coatings supplied under other Sections.

## 1.4 DELIVERY, STORAGE, AND HANDLING

- A. General:
  - 1. Do not store flammable materials inside buildings.
  - 2. Mix paint in a location and manner that will protect the environment and facilities.
  - 3. Provide ventilation needed to comply with OSHA requirements.

## 1.5 SITE CONDITIONS

- A. Do not apply exterior materials during fog, rain, or mist, or when inclement weather is expected within the dry time specified by the manufacturer. No exterior or interior painting shall be performed until the surfaces are thoroughly dry and cured. Do not apply paint when temperature is below 50° F. Avoid painting surfaces when exposed to direct sunlight.

## 1.6 EXTRA MATERIALS

- A. Upon completion of the work of this Section, deliver to the Owner an extra stock equaling 5% of each color, type, and gloss of paint used in the Work, tightly sealing each container, and clearly labeling with contents and location

- B Deliver materials to the Inspector of Record along with an inventory list of items provided. Obtain and forward to the Architect, a signed receipt from the Inspector accepting delivery.

## PART 2 - PRODUCTS

### 2.1 PAINT MATERIALS

- A Products specified are for establishing the type, design, and quality required and are based on products of **Sherwin-Williams**. Other product systems approved for use are by Pittsburg Paints, Dunn-Edwards, and Frazee. Products of equal or better type, design, and quality produced by other manufacturers will be considered provided the request for substitution is submitted in accordance with Section 01 2500.
  - 1 Where products are proposed other than Sherwin-Williams, submit a new painting schedule compiled in the same format used for the Painting Schedule included in this Section.
  - 2 Approved specifications of materials for the other referenced manufacturers may be obtained from the Architect.
- B Undercoats and Thinners:
  - 1 Provide undercoat paint produced by the same manufacturer as the finish coat, unless specified otherwise.
  - 2 Use only the thinners recommended by the paint manufacturer, and use only to the recommended limits.
  - 3 Provide undercoat, finish coat, and thinner material as parts of a unified system of paint finish.
- C Paint Systems: The specified standard is 100% acrylic premium top-of-the line paint, except where surfaces are specified to receive industrial coatings.

### 2.2 COLOR SCHEDULES

- A Refer to the Finish Schedule on the Drawings.

### 2.3 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 in accordance with all current Environmental Protection Agency standards and regulations.

### 2.4 OTHER MATERIALS

- A Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

## PART 3 - EXECUTION

### 3.1 SURFACE CONDITIONS

- A Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

### 3.2 MATERIALS PREPARATION

- A Mix, prepare, and store painting and finishing materials in accordance with the manufacturer's written

recommendations.

### 3.3 SURFACE PREPARATION

#### A. General:

- 1 Perform preparation and cleaning procedures in strict accordance with the paint manufacturers' recommendations.
- 2 Remove removable items which are in place and are not scheduled to receive paint finish.
- 3 Following completion of painting in each space or area, reinstall the removed items by using workmen who are skilled in the necessary trades.
- 4 Clean each surface to be painted prior to applying paint or surface treatment.
- 5 Remove dirt and other foreign substances. Remove oil and grease with clean cloths and cleaning solvent of low toxicity and flash point in excess of 200 degrees 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. Metal:

- 1 Thoroughly clean surfaces until free from dirt, oil, and grease. Remove all mill scale, rust formation, etc.
- 2 On galvanized surfaces, use solvent for the initial cleaning, and then treat the surface thoroughly with etching solution. Remove etching solution completely before proceeding. **Prime etched metals the same day cleaning was performed.**
- 3 Allow to dry thoroughly before application of paint.
- 4 **Primers specified for structural steel and metal fabrications are stand alone systems. Apply full paint system as specified in this Section even if metal comes preprimed or shop primed.**

#### C. Concrete:

- 1 Thoroughly clean surfaces.
- 2 Prior to painting, the material shall be dry to the extent that a proper, long lasting, and non-blistering bond will be assured. Should the dryness of the substrate be in question, test the substrate in the presence of the paint manufacturer's representative. Do not paint substrate in question until dryness condition improves to meet the paint manufacturer's requirements.

#### D. Masonry and Cement Plaster:

- 1 Allow to dry at least 30 days prior to cleaning in preparation for painting.
- 2 Remove glaze, efflorescence, laitance, surface deposits, and other foreign matter.

#### E. Gypsum Board: Remove all sanding dust.

#### F. Wood, Painted Finish:

- 1 Remove surface deposits of sap and pitch by scraping and cleaning with mineral spirits.
- 2 Seal all knots and pitch pockets with the paint manufacturer's recommended materials prior to prime coat.
- 3 Sand smooth all wood surfaces exposed to view, using the proper sandpaper and remove dust. Where so required, use varying degrees of coarseness in sandpaper to produce a uniformly smooth and unmarred wood surface.
- 4 After prime coat is dry, fill cracks, holes, and scratches with suitable wood filler or spackling compound. When dry, sand flush with surface.
- 5 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.

#### G. Wood, Stained Finish:

- 1 Apply paste wood filler to open grained wood prior to sanding.
- 2 Sand smooth all wood surfaces exposed to view, using the proper sandpaper and remove dust. Where so required, use varying degrees of coarseness in sandpaper to produce a uniformly smooth and unmarred wood surface.

3. Apply wash coat of sealer, sand and remove dust.
4. Lightly sand and clean between finish coats as recommended by the paint manufacturer.
5. Seal tops, bottoms, and edges of cutouts on wood doors.

### 3.4 PAINT APPLICATION

#### A. General:

1. Touchup or reprime shop-applied prime coats which have been damaged, and touch up bare areas prior to start offinish coats application.
2. Slightly vary the color of succeeding coats.
  - a. Do not apply additional coats until the completed coat has been inspected and approved.
  - b. Only the inspected and approved coats of paint will be considered in determining the number of coats applied.
3. Sand and dust between coats to remove defects visible to the unaided eye from a distance offive feet.
4. On removable panels and hinged panels, paint the back sides to match the exposed sides.
5. Finish to be smooth.

#### B. Priming: **Primers specified for structural steel and metal fabrications are stand alone systems. Apply full paint system as specified in this Section even if metal comes preprimed or shop primed.**

#### C. Drying: Allow sufficient drying time between coats, modifying the period as recommended by the material manufacturer to suit adverse weather conditions.

#### D. Brush Applications:

1. Brush out and work the brush coats onto the surface in an even film.
2. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, and other surface imperfections will not be acceptable.

#### E. Spray Application:

1. Except as specifically otherwise approved by the Architect, confine spray application to metal framework, wall surfaces, large expanse areas and similar surfaces where hand brush work would be inferior.
2. Where spray application is used, apply each coat to provide the hiding equivalent of brush coats.
3. Do not double back with spray equipment to build up film thickness of two coats in one pass.

#### F. Roller Application:

1. Apply paint with short nap roller on all metal doors. Color as specified (same interior and exterior).
2. Remove all surface applied door trim prior to painting.
3. Roller marks, lap marks, runs, sags, fuzz, lint or other surface imperfections will not be acceptable.

#### G. For completed work, match the approved Samples as to texture, color, and coverage. Remove, refinish, or repaint work not in compliance with the specified requirements.

#### H. Exposed Mechanical and Electrical Items:

1. Finish electric panels, access doors, conduits, pipes, ducts, grilles, registers, vents, exposed plumbing vents and flues, and items of similar nature to match the adjacent wall and ceiling surfaces, or as directed.
2. Paint visible duct surfaces behind vents, registers, and grilles flat black.
3. Exposed vents and flues: Apply two coats of heat-resistant paint approved by the Architect.
4. Factory finished items that match color scheme may be approved for leaving unpainted by Architect.

#### I. Exposed Pipe and Duct Insulation:

1. Apply one coat of latex paint on insulation which has been sized or primed under other Sections; apply two coats on such surfaces when unprepared.
2. Match color of adjacent surfaces unless otherwise noted.
3. Remove band before painting, and replace after painting.

- J. Hardware: Paint prime coated hardware to match adjacent surfaces, unless otherwise noted. Paint metal portions of head seals, jamb seals, and astragal seals to match the color of the door frame unless otherwise directed by the Architect.
- K Wet Areas:
- 1 In toilet rooms and contiguous areas, add an approved fungicide to paints.
  - 2 For oil base paints, use 1% phenolmercuric or 4% tetrachlorophenol.
  - 3 For water emulsion and glue size surfaces, use 4% sodium tetrachlorophenate.
- L Miscellaneous:
- 1 Use "stipple" finish where enamel is specified.
  - 2 Ferrous Metal: When metal comes shop primed or preprimed, always reprime with a solvent primer or Direct-to-Metal (DTM) primer. Sand or remove all visible rust.
  - 3 **Wood Trim: Backprime exterior wood trim prior to installation with the paint manufacturer's recommended exterior wood primer.**

### 3.5 PROTECTION

- A Protect floors, furnishings, equipment, finish hardware, name or information plates, dials, gauges, tile, or other such surfaces not requiring painting from spotting, spillage, or damage of any kind. Clean, repair, or replace any damaged surfaces as directed by the Architect.
- B Remove, loosen, or mask hardware, fixture canopies, outlet covers, switch plates, and other similar items as required for painting work and then replace.
- C Using workmen skilled in these trades, move equipment adjacent to walls to permit wall surfaces to be painted, and following completion of painting, replace and reconnect.

### 3.6 CLEANING

- A Upon completion of all paint work, clean paint from all glass surfaces leaving a sharp clean line.
- B Remove paint spots, oil, or stains.

### 3.7 PAINTING SCHEDULE

- A General: Provide paint systems as specified below.
- 1 Products specified in this schedule are based upon products of **Sherwin-Williams** and are specified for establishing the type and quality of products required. Refer to Paragraph 2.1.A of this Section.
  - 2 See Finish Schedule for colors and gloss.
  - 3 Abbreviations: (F) = Flat, (LL) = Low Luster, (SGE) = Semi-Gloss Enamel; (ESE) = Eggshell Enamel; (GE)= Gloss Enamel; {SL} = Stain/Lacquer
- B Exterior Cement Plaster and Concrete {LL):
- 1 First coat: A24W300, Loxon Masonry Primer
  - 2 Second coat: AG Series, A100 Exterior Flat
  - 3 Third coat: AG Series, A100 Exterior Flat
- C Exterior Concrete Block (F):
- 1 First coat: B42W46, Heavy Duty Block Filler
  - 2 Second Coat: AG Series, A100 Exterior Flat
  - 3 Third coat: AG Series, A100 Exterior Flat

- D. Exterior Wood (F):
- 1 First coat: B42W41, A100 Exterior Latex Wood Primer
  - 2 Second coat: A6 Series, A100 Exterior Flat
  - 3 Third coat: A6 Series, A100 Exterior Flat
- E. Exterior Wood - Solid Color Stain (F):
- 1 First coat: A1S Series, Woodscapes Exterior Acrylic Solid Color Stain
  - 2 Second coat: A1S Series, Woodscapes Exterior Acrylic Solid Color Stain
- F. Interior Primer Only behind FRP or VWC:
- 1 Gypsum Drywall: B28W200, Prep Rite 200 Latex Primer
  - 2 Concrete Block: B42W46, Heavy Duty Block Filler
- G. Interior Flat Wall Paint (F):
- 1 Gypsum Drywall:
    - a First coat: B28W200, Prep Rite 200 Latex Primer
    - b Second coat: B30 Series, Pro Mar 200 Interior Latex Flat
    - c Third coat: B30 Series, Pro Mar 200 Interior Latex Flat
  - 2 Concrete Block:
    - a First coat: B42W46, Heavy Duty Block Filler
    - b Second coat: B30 Series, Pro Mar 200 Interior Latex Flat
    - c Third coat: B30 Series, Pro Mar 200 Interior Latex Flat
  - 3 Acoustic Surfaces:
    - a First Coat: B30WJ6851 Showcase Plus
    - b Second Coat: B30WJ6851 Showcase Plus
- H. Interior Egg-Shell Enamel (ESE):
- 1 Gypsum Drywall:
    - a First coat: B28W200, Prep Rite 200 Latex Primer
    - b Second coat: B20 Series, Pro Mar 200 Interior Latex Eg-Shel
    - c Third coat: B20 Series, Pro Mar 200 Interior Latex Eg-Shel
  - 2 Concrete Block:
    - a First coat: B42W46, Heavy Duty Block Filler
    - b Second coat: B20 Series, Pro Mar 200 Interior Latex Eg-Shel
    - c Third coat: B20 Series, Pro Mar 200 Interior Latex Eg-Shel
  - 3 Cement Plaster:
    - a First coat: B28W101, Prep Rite Classic Interior Latex Primer
    - b Second coat: B20 Series, Pro Mar 200 Interior Latex Eg-Shel
    - c Third coat: B20 Series, Pro Mar 200 Interior Latex Eg-Shel
  - 4 Ferrous Metal:
    - a First coat: B66-310, Pro Cryl Universal Primer
    - b Second coat: B20 Series, Pro Mar 200 Latex Eg-Shel
    - c Third coat: B20 Series, Pro Mar 200 Latex Eg-Shel
  - 5 Galvanized Metal:
    - a First coat: B71YI, DTM Wash Primer
    - b Second coat: B20 Series, Pro Mar 200 Latex Eg-Shel
    - c Third coat: B20 Series, Pro Mar 200 Latex Eg-Shel
- I. Interior Semi-Gloss Enamel (SGE):
- 1 Ferrous Metal:
    - a First coat: B66-310, Pro Cryl Universal Primer
    - b Second coat: B31Series, Pro Mar 200 Latex Semi-Gloss
    - c Third coat: B31Series, Pro Mar 200 Latex Semi-Gloss
    - d Note: Where trim paint is an extension of or same as exterior color, use the same paint specified under

- "Exterior Metals".
2. Galvanized Metal:
    - a. First coat: B71YI, DTM Wash Primer
    - b. Second coat: B31 Series, Pro Mar 200 Latex Semi-Gloss
    - c. Third coat: B31 Series, Pro Mar 200 Latex Semi-Gloss
    - d. Note: Where trim paint is an extension of or same as exterior color, use the same paint specified under "Exterior Metals".
  3. Wood Doors and Trim:
    - a. First coat: B49WJ1100, Water Reducible Alkyd Primer
    - b. Second coat: B31 Series, Pro Mar 200 Latex Semi-Gloss
    - c. Third coat: B31 Series, Pro Mar 200 Latex Semi-Gloss
  4. Concrete Block:
    - a. First coat: B42W46, Heavy Duty Block Filler
    - b. Second coat: B31 Series, Pro Mar 200 Latex Semi-Gloss
    - c. Third coat: B31 Series, Pro Mar 200 Latex Semi-Gloss
  5. Gypsum Drywall:
    - a. First coat: B28W200, Prep Rite 200 Latex Primer
    - b. Second coat: B31 Series, Pro Mar 200 Latex Semi-Gloss
    - c. Third coat: B31 Series, Pro Mar 200 Latex Semi-Gloss
- J. Exterior Gloss Enamel (GE):
1. Ferrous Metal:
    - a. First coat: **Pro Industrial DTM Acrylic Primer/Finish**
    - b. Second coat: **Pro Industrial DTM Acrylic Primer/Finish**
    - c. Third coat:
  2. Galvanized Metal: B71YI, DTM Wash Primer
    - a. First coat: B21W351, Pro Classic Waterborne Interior Gloss Enamel
    - b. Second coat: B21W351, Pro Classic Waterborne Interior Gloss Enamel
    - c. Third coat:
    - d. Note: Where trim paint is an extension of or same as exterior color, use the same paint specified under "Exterior Metals".
  3. Wood Doors and Trim:
    - a. First coat: B49WJ1100, Water Reducible Alkyd Primer
    - b. Second coat: B21W351, Pro Classic Waterborne Interior Gloss Enamel
    - c. Third coat: B21W351, Pro Classic Waterborne Interior Gloss Enamel
  4. Concrete Block: B42W46, Heavy Duty Block Filler
    - a. First coat: B21W351, Pro Classic Waterborne Interior Gloss Enamel
    - b. Second coat: B21W351, Pro Classic Waterborne Interior Gloss Enamel
    - c. Third coat:
  5. Gypsum Drywall: B28W200, Prep Rite 200 Latex Primer
    - a. First coat: B21W351, Pro Classic Waterborne Interior Gloss Enamel
    - b. Second coat: B21W351, Pro Classic Waterborne Interior Gloss Enamel
    - c. Third coat:
- K. ~~Stain Wood Doors and Trim~~ (transparent):
- a. Stain: A49 Series, Wood Classics Oil Stain
  - b. First coat: B44MJ91, Lacquer Sealer
  - c. Second coat: B44FJ86, Semi-Gloss Lacquer
  - d. Third coat: B44FJ86, Semi-Gloss Lacquer
- L. Wood Trim (opaque): A15 Series, Woodscapes Acrylic Solid Color Stain
- a. First coat: A15 Series, Woodscapes Acrylic Solid Color Stain
  - b. Second coat:



- L. Acoustic Surfaces:
  - 1. First coat: B30WJ6851, Showcase Plus Interior Flat
  - 2. Second coat: B30WJ6851, Showcase Plus Interior Flat
  
- M. Exposed Concrete Floors:
  - 1. General Polymers clear floor coating.

**END OF SECTION 09 9100**