

SECTION 9A

PAINTING, GENERAL

1. APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1 Federal Specifications (Fed. Spec.):

TT-P-31D	Paint, Oil: Iron-Oxide, Ready-Mixed, Red and Brown
TT-P-37D and Am-4	Paint, Alkyd Resin, Exterior Trim, Deep Colors
TT-P-86G	Paint, Red-Lead-Base, Ready-Mixed
TT-P-102E and Int. Am-1	Paint, Oil Alkyd Modified, Exterior, White and Tints
TT-P-615D and Am-3	Primer Coating: Basic Lead Silico Chromate, Ready Mixed
TT-P-641G and Am-1	Primer Coating: Zinc Dust-Zinc Oxide (for Galvanized Surfaces)
TT-P-645A	Primer, Paint, Zinc-Chromate, Alkyd Type

1.2 Federal Standard (Fed. Std.):

No. 595a and Change Notices 2, 3, 4, 5, and 6	Colors
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1.3 Military Specifications (Mil. Spec.):

DOD-P-15328D	Primer (Wash), Pretreatment, (Formula No. 117 for Metals) (Metric)
MIL-P-26915B	Primer Coating, Zinc Dust Pigmented, for Steel Surfaces

1.4 Steel Structures Painting Council (SSPC) Specifications:

SSPC-PA 1-82	Shop, Field, and Maintenance Painting
SSPC-SP 6-82	Commercial Blast Cleaning

2. DEFINITION: The term "paint" as used herein, includes enamels, paints, and other coatings, whether used as prime, intermediate, or finish coats.

3. PACKAGING, LABELING, AND STORAGE: Paints shall be in sealed containers which legibly show the designated name, formula or specification number, batch number, manufacturer's directions including any warnings and special precautions, and name of manufacturer. Pigmented paints shall be furnished in containers not larger than 5 gallons. Paint shall be stored on the project site or segregated at the source of supply sufficiently in advance of need to allow 30 days for testing.

4. SUBMITTALS:

4.1 Certificates of Compliance: The Contractor shall furnish a certificate of compliance in accordance with the SPECIAL CLAUSES.

4.2 Manufacturer's Instructions: Detailed mixing, thinning and application instructions, minimum and maximum application temperature, and curing time shall be furnished.

4.3 Samples: Upon notification by the Contractor that the material is at the site or source of supply, a 1-quart sample of each batch, except for small quantities approved as proprietary brands, shall be taken by random selection from the sealed containers by the Contractor in the presence of a representative of the Contracting Officer. The contents of the sampled containers shall be thoroughly mixed to render the sample representative. Samples shall be identified by designated name, specification number, batch number, project contract number, intended use, and quantity involved.

4.4 Small Quantity Substitution: The Contractor shall submit for approval the names of the proprietary brands of materials that are proposed to be substituted for the specified materials when the required quantity of a particular color is 25 gallons or less.

4.5 Test Reports: The Contractor shall furnish either one of the following reports for batches in excess of 25 gallons:

a. A test report showing that the batch meets all specification requirements.

b. A test report showing that a previous batch of the same formulation as the batch to be used met all specification requirements, and a report of test results for properties of weight per gallon, viscosity, fineness of grind, drying time, color, and gloss.

5. COLORS AND TINTS: Colors and tints shall conform to Fed. Std. 595 and shall be as selected. The color of the undercoats shall vary slightly from the color of the next coat.

6. ENVIRONMENTAL CONDITIONS: Unless otherwise recommended by the paint manufacturer, the ambient temperature shall be between 45 and 95 degrees Fahrenheit when applying coatings. Paints shall be applied only to surfaces that are completely free of surface moisture as determined by sight or touch. In no case shall paint be applied to surfaces upon which there is visible frost or ice.

7. MATERIALS:

7.1 General: Materials shall conform to the requirements of the specifications listed herein and in the PAINTING SCHEDULE except when the required quantity of a material of a particular color is 25 gallons or less, an approved proprietary brand of materials similar in intended usage and color to that specified may be used.

7.2 Exterior Oil Paint: Exterior oil paint shall conform to the following Fed. Specs.

White: TT-P-102, Type I.

Light Tints: TT-P-102, Type II.

Red or Brown: TT-P-31.

Other Deep Colors: TT-P-37.

7.3 Ferrous-Metal Primer: Ferrous-metal primer shall conform to Fed. Spec. TT-P-86, Type I or II; TT-P-615, Type I, II, or V; or Fed. Spec. TT-P-645.

8. HAZARDOUS MATERIALS RESTRICTIONS: Mercurial fungicides shall not be used in exterior oil paints.

9. SURFACE PREPARATION:

9.1 General: Items not to be painted which are in contact with or adjacent to painted surfaces shall be removed or protected prior to surface preparation and painting operations. Surfaces to be painted shall be clean before applying paint or surface treatments. Oil and grease shall be removed with clean cloths and cleaning solvents prior to mechanical cleaning. Cleaning solvents shall be of low toxicity with a flashpoint in excess of 100 degrees Fahrenheit. Cleaning shall be programmed so that dust and other contaminants will not fall on wet, newly painted surfaces.

9.2 Ferrous Surfaces: Ferrous surfaces that have not been shop-coated shall be solvent-cleaned. Surfaces that contain loose rust, loose mill scale, and other foreign substances shall be mechanically cleaned by power wire brushing or sandblasting. Minor amounts of residual rust, that cannot be removed except by thorough blast-cleaning, and tight mill scale that cannot be removed by applying a sharp knife to any edge, will be allowed to remain. After cleaning, one coat of ferrous-metal primer shall be applied to all ferrous surfaces to receive paint. The semitransparent film applied to some pipes and tubing at the mill is not to be considered as a shop coat, but shall be overcoated with the specified ferrous metal primer prior to application of finish coats. Shop coated ferrous surfaces shall be protected from corrosion by treating and touching up corroded areas immediately upon detection.

10. MIXING AND THINNING: Packaged paint may be thinned immediately prior to application where necessary to suit conditions of surface, temperature, weather, and method of application with not more than 1 pint of suitable thinner per gallon. The use of thinner shall not relieve the Contractor from obtaining complete hiding. Paints of different manufacturers shall not be mixed.

APPLICATION:

11.1 General: Paint may be applied by brush, roller or spray except as hereinafter specified. At time of application, paint shall show no signs of deterioration. Uniform suspension of pigments shall be maintained during application. Paint shall be applied so finished surfaces shall be free from runs, drops, ridges, waves, laps, brush marks, and variations in color, texture, and finish. Hiding shall be complete. Each coat shall be applied as a film of uniform thickness. Rollers for applying paints and enamels shall be of a type designed for the coating to be applied and the surface to be coated. Special attention shall be given to insure that all surfaces including edges, corners, crevices, welds, and rivets receive a film thickness equivalent to that of adjacent painted surfaces. Adequate ventilation shall be provided during paint application. Respirators shall be worn by all persons engaged in spray painting. Adjacent areas shall be protected by the use of drop cloths or other approved precautionary measures shall be taken. Paints shall be applied only to surfaces that are completely free of surface moisture as determined by sight or touch. In no case shall paint be applied to surfaces upon which there is visible frost or snow.

11.2 Coating Progress: Sufficient time shall elapse between successive coats to permit proper drying. This period shall be modified as necessary to suit adverse weather conditions. Oil base of oleoresinous 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.

Metal Surfaces: First coats shall be applied by brush.

11.4 Time Between Surface Preparation and Painting: Surfaces that have been cleaned, pretreated and otherwise prepared for painting shall be given a coat of the specified first coat as soon as practicable after such pretreatment has been completed, but prior to any deterioration of the prepared surface.

12. SURFACES TO BE PAINTED: Surfaces listed in the PAINTING SCHEDULE, other than those listed in paragraphs SURFACES NOT REQUIRING PAINTING, will receive the surface preparation, paints, and number of coats prescribed in the schedule.

13. SURFACES NOT REQUIRING PAINTING: The following listed items will not require painting:

- Metal Arch
- Concrete
- Electrical Conduit
- Insect Screen
- Galvanized Louvers
- Galvanized Ventilator Cap
- Fusible Links
- Air Terminals

14. CLEANING: Cloths, cotton waste and other debris that might constitute a fire hazard shall be placed in closed metal containers and removed at the end of each day. Upon completion of the work, staging, scaffolding, and containers shall be removed from the site or destroyed in an approved manner. Paint and other deposits upon adjacent surfaces shall be removed and the entire job left clean and acceptable.

15. PAINTING SCHEDULE: The PAINTING SCHEDULE prescribes the surfaces to be painted, required surface preparation, and the number and types of coats of paint. Explanatory information for use with the PAINTING SCHEDULE is as follows:

15.1 Shop-Painted Items: Surfaces of items finish-painted by the manufacturer, or specified to be finish-painted under other section of the specifications, are exempted from the requirements for surface preparation and painting. Shop-primed items shall receive surface preparation and finish painting as required by this section.

15.2 Surface Preparation: The statement "as previously specified" under column heading "Surface Preparation" of the PAINTING SCHEDULE refers to paragraph SURFACE PREPARATION of this section of the specification.

PAINING SCHEDULE

<u>Surface</u>	<u>Surface Preparation</u>	<u>1st Coat</u>	<u>2nd Coat</u>	<u>3rd Coat</u>
Ferrous surfaces, exposed, unless otherwise specified	As previously specified	Exterior oil paint	Exterior oil paint	None