

Steel Structures Painting Council

PAINTING SYSTEM SPECIFICATION NO. 2.05

Three-Coat Alkyd Painting System for Unrusted Galvanized Steel (For Weather Exposure)

1. Scope

1.1 This specification covers an alkyd painting system for new, unrusted, untreated, galvanized steel.

1.2 This system is suitable for use on parts or structures exposed in Environmental Zones 1A (interior, normally dry) and 1B (exterior, normally dry).

1.3 The primer has good adhesion to clean galvanized steel, but does not adhere properly to rusted galvanized steel. Painting System No. 1.04 should be specified for this condition.

1.4 The finish paint allows for a choice of durable, fade-resistant colors.

2. Description

2.1 This painting system consists of surface preparation by solvent cleaning and hand or power tool cleaning, one coat of alkyd zinc dust-zinc oxide primer, and two coats of alkyd white or tinted finish coat.

3. Reference Standards

3.1 The standards referenced in this specification are listed in Sections 3.4 and 3.5 and form a part of this specification.

3.2 The latest issue, revision, or amendment of the reference standards in effect on the date of invitation to bid shall govern unless otherwise specified.

3.3 If there is a conflict between the requirements of any of the cited reference standards and this specification, the requirements of this specification shall prevail.

3.4 STEEL STRUCTURES PAINTING COUNCIL (SSPC) SPECIFICATIONS:

PA 1	Shop, Field, and Maintenance Painting
PA 2	Measurement of Dry Paint Thickness with Magnetic Gages
PA Guide 3	A Guide to Safety in Paint Application
Paint 101	Aluminum Alkyd Paint
Paint 104	White or Tinted Alkyd Paint
Paint 108	High-Build Thixotropic Leafing Aluminum Paint

SP 2 Hand Tool Cleaning

SP 3 Power Tool Cleaning

3.5 FEDERAL STANDARDS: TT-P-641 Primer Coating, Zinc Dust-Zinc Oxide (for Galvanized Steel)

4. Surface Preparation

4.1 SSPC-SP 2, "Hand Tool Cleaning," or SSPC-SP 3, "Power Tool Cleaning."

5. Paints

5.1 PRIMER: TT-P-641, "Primer Coating, Zinc Dust-Zinc Oxide (for Galvanized Surfaces)," Type II, "Phthalic Alkyd Resin Paint."

5.2 INTERMEDIATE (SECOND COAT): SSPC-Paint 104, "White or Tinted Alkyd Paint," tinted with carbon black or lampblack dispersion to a color contrasting with that of the finish coat.

5.3 FINISH COAT: SSPC-Paint 104, "White or Tinted Alkyd Paint." The color must be specified.

5.4 ALTERNATIVE FINISH COAT: If specified in the procurement documents, a finish coat complying with specification SSPC-Paint 101, "Aluminum Alkyd Paint," Type I, "Leafing" shall be applied in place of the standard finish coat. If this alternative finish coat is used, then the intermediate coat shall consist of one coat of SSPC-Paint 101, "Alkyd Aluminum Paint," Type II, "Non-Leafing."

5.5 ALTERNATIVE FINISH COAT: If specified in the procurement documents, a finish coat complying with specification SSPC-Paint 108, "High-Build Thixotropic Leafing Aluminum Paint" shall be applied in place of the standard finish coat. If this alternative finish coat is used, then no intermediate coat shall be required, but the dry film thickness shall not be less than 2.5 mils (64 microns) for the finish coat and 4.5 mils (114 microns) for the painting system.

6. Paint Application

6.1 PAINT APPLICATION: Follow requirements of SSPC-PA 1, "Shop, Field, and Maintenance Painting."

6.2 TOUCH-UP PAINTING: In accordance with specification SSPC-PA 1, "Shop, Field, and Maintenance Painting" and in particular with the Section thereof entitled "Field Painting."

6.3 NUMBER OF COATS: Minimum of three.

6.4 DRY FILM THICKNESS OF PAINT SYSTEM: Not less than the following as measured in accordance with SSPC-PA 2, "Measurement of Dry Paint Thickness with Magnetic Gages": primer 2.0 mils (51 microns); intermediate coat 1.5 mils (38 microns); finish coat 1.0 mil (25 microns); for the three-coat painting system 4.5 mils (114 microns). If alternative finish coat is used as indicated in Section 5.5, see that section for dry film thickness requirement.

7. Inspection

7.1 All work and materials supplied under this specification shall be subject to timely inspection by the purchaser or his authorized representative. The contractor shall correct such work or replace such material as is found defective under this specification. In case of dispute the arbitration or settlement procedure established in the procurement documents, if any, shall be followed. If no arbitration or settlement procedure is established, the procedure specified by the American Arbitration Association shall be used.

7.2 Samples of paints used under this painting system should be supplied upon request along with the supplier's name and identification for the materials.

7.3 Unless otherwise specified, the methods of sampling and testing should be in accordance with Federal Test Method

Standard No. 141, or applicable methods of the American Society for Testing and Materials.

7.4 The procurement documents covering work or purchase should establish the responsibility for samples, testing, and any required affidavit certifying full compliance with the specification.

8. Safety

8.1 All safety requirements stated in this specification and its component parts apply in addition to any applicable federal, state, and local rules and requirements. They also shall be in accord with instructions of the paint manufacturer and requirements of insurance underwriters.

8.2 Paints are hazardous because of their flammability and potential toxicity. Proper safety precautions shall be observed to protect against these recognized hazards. Safe handling practices are required and should include, but not be limited to, the provisions of SSPC-PA Guide 3, "A Guide to Safety in Paint Application."

8.3 The paints specified herein may not comply with some air pollution regulations because of their hydrocarbon solvent content.

9. Note

9.1 While every precaution is taken to insure that all information furnished in SSPC specifications is as accurate, complete, and useful as possible, SSPC cannot assume responsibility or incur any obligation resulting from the use of any materials, paints, or methods specified therein, or of the specification itself.

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