

SSPC: The Society for Protective Coatings

PAINTING SYSTEM NO. 16.01

Silicone Alkyd Painting System for New Steel¹

1. Scope

1.1 This specification covers a complete silicone alkyd painting system for structural steel.

1.2 This system is suitable for use on parts or structures exposed in Environmental Zones 2A (frequently wet by fresh water) including high humidity, infrequent immersion, and mild chemical atmospheres.

1.3 The primary virtue of this system is the exterior durability and minimum deterioration of the silicone alkyd finish as shown by chalk resistance, gloss retention, and color retention. In addition, the finish paint allows for a choice of colors.

2. Description

2.1 This painting system consists of surface preparation by commercial blast cleaning or pickling, one coat of oil or alkyd primer, one intermediate coat of alkyd paint, and one finish coat of silicone alkyd paint.

3. Referenced Standards

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

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

3.3 SSPC STANDARDS AND JOINT STANDARDS:

PA 1	Shop, Field, and Maintenance Painting of Steel
PA 2	Measurement of Dry Coating Thickness With Magnetic Gages
PA Guide 4	Guide to Maintenance Repainting with Oil Base or Alkyd Painting Systems
Paint 11*	Red Iron, Zinc Chromate, Raw Linseed Oil and Alkyd Primer
Paint 21	White or Colored Silicone Alkyd Paint

Paint 104	White or Tinted Alkyd Paint
SP 5/NACE No. 1	White Metal Blast Cleaning
SP 6/NACE No. 3	Commercial Blast Cleaning
SP 8	Pickling
SP 10/NACE No. 2	Near-White Blast Cleaning

3.4 AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) STANDARD:

D 3925	Standard Practice for Sampling Liquid Paints and Related Pigmented Coatings
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4. Surface Preparation

4.1 SSPC-SP 6, "Commercial Blast Cleaning," or SSPC-SP 8, "Pickling." If specified in the procurement documents, a better degree of cleaning shall be substituted (SSPC-SP 5, "White Metal Blast Cleaning," or SSPC-SP 10, "Near-White Blast Cleaning").

5. Paints

5.1 PRIMERS: After cleaning, the steel shall be primed with one coat of paint conforming with one of the following specifications:

5.1.1 SSPC-Paint 11¹, "Red Iron Oxide, Zinc Chromate, Raw Linseed Oil and Alkyd Primer."

5.1.2 Proprietary Primer:

COMMENT: A proprietary primer of proven performance capability may be substituted for any of the above if desired by the specifier. Specify the manufacturer, trade name, and product number of the desired proprietary paint. The paint manufacturer should furnish a typical label analysis.

5.2 INTERMEDIATE COAT: SSPC-Paint 104, "White or Tinted Alkyd Paint," with a gloss no higher than 20 and tinted with carbon black or lampblack paste in oil to a shade contrasting with that of the finish coat.

5.3 FINISH COAT: SSPC-Paint 21, "White or Colored Silicone Alkyd Paint."

¹ This paint contains chromate pigments. Users are urged to follow all health, safety, and environmental requirements in applying, handling or disposing of these materials.

6. Paint Application

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

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

6.3 MAINTENANCE PAINTING: The provisions of SSPC-PA Guide 4, "Guide to Maintenance Repainting with Oil Base or Alkyd Painting Systems," should be followed.

6.4 NUMBER OF COATS: Minimum of three.

6.5 DRY FILM THICKNESS OF PAINT SYSTEM: Not less than the following as measured in accordance with SSPC-PA 2, "Measurement of Dry Coating Thickness with Magnetic Gages": primer 50 micrometers (2.0 mils); intermediate 38 micrometers (1.5 mils); finish coat 38 micrometers (1.5 mils); for a three-coat system 125 micrometers (5.0 mils).

7. Inspection

7.1 All work and materials supplied under this specification are 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 (See Note 9.1.). In case of dispute, unless otherwise specified, the arbitration or settlement procedure established in the procurement documents shall be followed. If no arbitration or settlement procedure is established, then a procedure mutually agreeable to purchaser, material supplier, and contractor shall be used.

7.2 Samples of paints under this painting system may be requested by the purchaser and shall be supplied upon request along with the manufacturer's name and identification for the materials. Samples may be requested at the time the purchase order is placed, or may be taken from unopened containers at the job site.

7.3 Unless otherwise specified, the sampling shall be in accordance with ASTM D 3925.

8. Disclaimer

8.1 While every precaution is taken to ensure that all information furnished in SSPC standards and specifications is as accurate, complete, and useful as possible, SSPC cannot assume responsibility nor incur any obligation resulting from the use of any materials, coatings, or methods specified herein, or of the specification or standard itself.

8.2 This specification does not attempt to address problems concerning safety associated with its use. The user of this specification, as well as the user of all products or practices described herein, is responsible for instituting appropriate health and safety practices and for insuring compliance with all governmental regulations.

9. Note

Notes are not a requirement of this specification.

9.1 The procurement documents should establish the responsibility for samples, testing, and any required affidavit certifying full compliance with the specification.