

SSPC: The Society for Protective Coatings

PAINTING SYSTEM NO. 4.02

Four-Coat Vinyl Painting System (For Fresh Water, Chemical, and Corrosive Atmospheres)

1. Scope

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

1.2 This system is suitable for use on parts or structures exposed in Environmental Zones 2C (fresh water immersion), 3A (chemical exposure, acidic), and 3B (chemical exposure, neutral).

1.3 The finish paint allows for a choice of colors.

2. Description

2.1 This painting system consists of surface preparation by near-white blast cleaning or pickling and four coats of U.S. Bureau of Reclamation VR-3, "Vinyl Resin 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
SP 5/NACE No. 1	White Metal 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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3.5 U.S. BUREAU OF RECLAMATION STANDARD:

VR-3	Vinyl Resin Paint
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4. Surface Preparation

4.1 SSPC-SP 10, "Near-White 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").

5. Paints

5.1 **PRIMER:** U.S. Bureau of Reclamation Specification VR-3, "Vinyl Resin Paint."

5.2 **SECOND COAT:** U.S. Bureau of Reclamation Specification VR-3, "Vinyl Resin Paint," tinted to a color contrasting with the primer and the third coat.

5.3 **THIRD COAT:** U.S. Bureau of Reclamation Specification VR-3, "Vinyl Resin Paint," tinted to a color contrasting with the second coat and the finish paint.

5.4 **FINISH COAT:** U.S. Bureau of Reclamation Specification VR-3, "Vinyl Resin Paint."

6. Paint Application

6.1 **PAINT APPLICATION:** Follow the requirements 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:** For maintenance painting procedures, see SSPC-PA Guide 4, "Guide to Maintenance Repainting with Oil Base or Alkyd Painting Systems."

6.4 **NUMBER OF COATS:** Minimum of four.

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 38 micrometers (1.5 mils); for the four-coat painting system 150 micrometers (6.0 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. Notes

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.

9.2 The painting system is intended primarily for structural steel exposed to fresh water immersion, condensation, very severe weather, or chemical atmospheres. It may be used with discretion for immersion in corrosive chemicals such as inorganic acids, alkalis, and salts or in liquids such as aliphatics, alcohols, oils, and grease. However, it is dissolved by some organic solvents such as aromatics, ketones, ethers, and esters, and attacked by some chemicals such as fuming nitric acid, 98% sulfuric acid, and acetic acid.