

SSPC: The Society for Protective Coatings

PAINTING SYSTEM NO. 11.01

Black (or Dark Red) Coal Tar Epoxy Polyamide Painting System

1. Scope

1.1 This specification covers a complete coal tar epoxy polyamide black (or dark red) painting system for the protection of steel surfaces that will be exposed to severely corrosive conditions.

1.2 This system is suitable for use on parts or structures exposed in Environmental Zones 2A (frequently wet by fresh water), 2B (frequently wet by salt water), 2C (fresh water immersion), 2D (salt water immersion), 3A (chemical, acidic), 3B (chemical, neutral), and 3C (chemical, alkaline). Its resistance to chemical fumes, mists, and splashings is generally considered to be good, but its suitability for prolonged immersion in specific chemicals should be confirmed by trial tests in the absence of applicable case histories. It is also suitable for underground exposure and as a protective coating for sound concrete surfaces in marine and some chemical environments.

1.3 Its good weathering properties can be improved by applying a finish coat of a compatible aluminum pigmented paint.

1.4 Although it is self-priming and exhibits good adhesion to clean structural steel surfaces, it may also be used over suitable inhibitive primers.

1.5 The color of paint is black unless red is specified.

2. Description

2.1 This painting system consists of surface preparation by commercial blast cleaning and two or more coats, if necessary, of coal tar epoxy polyamide 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. Standards marked with an asterisk (*) are referenced only in the Notes, which are not requirements of this specification.

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 16	Coal Tar Epoxy Polyamide Black (or Dark Red) 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) STANDARDS:

D 3925	Standard Practice for Sampling Liquid Paints and Related Pigmented Coatings
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3.5 FEDERAL STANDARDS AND SPECIFICATIONS:

MIL-PRF-23236	Paint Coating Systems, Fuel and Salt Water Ballast Tanks (Cancelled; Formerly DoD-P-23236 or MIL-P-23236; Replaced by 23236C Coating Systems for Ship Structures.)
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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 better degrees of cleaning shall be substituted (SSPC-SP 5, "White Metal Blast Cleaning," or SSPC-SP 10, "Near-White Blast Cleaning").

5. Paints

5.1 FIRST COAT: SSPC-Paint 16, "Coal Tar Epoxy Polyamide Black (or Dark Red) Paint."

5.2 SECOND COAT: The second coat shall be the same coating as the first coat.



6. Paint Application

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

6.1.1 When the substrate or an applied coat is subject to exposure to sunlight and is expected to have surface temperatures above 52°C (125°F), either the surfaces shall be shaded by overhead cover or the intercoat drying time shall be adjusted downward as may be necessary to avoid poor intercoat adhesion.

6.1.2 Final Drying Time: The completed painting system shall be allowed to cure for at least the length of time shown below before being exposed to water, solvents, or chemicals in the form of condensation, mists, splashing, or immersion.

Average Ambient Temperature		Days Curing
Degrees F	Degrees C	
70 or over	21 or over	5
60 to 70	16 to 21	7
50 to 60	10 to 16	10

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

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": first coat 200 micrometers (8 mils); 200 micrometers (8 mils); for the two-coat painting system 400 micrometers (16 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 specification can also be applied to the coating of concrete surfaces provided specific provisions are included in the procurement documents regarding cleaning and preparation of the surfaces and the thickness of the material per coat.

9.3 While this specification applies primarily to a coal tar epoxy paint which is cured with a co-reacting polyamide resin and polyamide catalyst, most of its provisions are also appropriate for coal tar epoxy materials, cured solely by polyamines, commercially available from many suppliers. Such materials or materials conforming to MIL-PRF-23236 may, however, be substituted only by express permission.

9.4 If an electrical inspection is required, use a holiday detector of the Tinker-Raser, Bird Dog, or other approved type having a range of 67.5 to 75 volts.

9.5 Coal tar epoxy coatings may be toxic and irritating to the skin and eyes.