

SSPC: The Society for Protective Coatings

Coating System No. 26.00

ALUMINUM-PIGMENTED EPOXY COATING SYSTEM MATERIALS STANDARD, PERFORMANCE-BASED

Type I for Use Over Blast-Cleaned Steel

Type II for Use Over Hand-Cleaned Steel

1. SCOPE

1.1 This standard covers the requirements for an ambient-temperature cure, two-component aluminum pigmented epoxy coating that is intended for use as a single or multi-coat system on steel.

1.2 Coating systems meeting this standard are suitable for exposures in SSPC Environmental Zones 1A (interior, normally dry), 1B (exterior, normally dry), 2A (frequently wet by fresh water, excluding immersion), 2B (frequently wet by salt water, excluding immersion), and 3B (chemical exposure, neutral (see Note 12.1)).

1.3 The specified coating system is intended for application by brush, spray, or roller (see Note 12.2). Type I is for use over steel surfaces blast cleaned to SSPC-SP 6 or better (see Note 12.3). Type II is for use over non-blast cleaned as well as blast cleaned steel surfaces, i.e., surfaces cleaned to SSPC-SP 2 or better (see Note 12.4). For either Type I or Type II, the surface should be prepared in accordance with the manufacturer's written recommendations.

1.4 UNITS OF MEASURE: This standard makes use of both the ASTM¹ SI 10, "American National Standard for Metric Practice" International System Units (SI) units and U.S. Customary units. The measurements are not exact equivalents; therefore each system must be used independently of the other without combining in any way. This standard uses SI units with the U.S. Customary conversions shown in parentheses.

2. DESCRIPTION

2.1 COMPONENTS

2.1.1 This coating is typically based on a reactive oxirane (epoxy) functional resin with an amine or polyamide functional curing agent (see Section 4).

2.1.2 The principal functional pigment is aluminum paste or flake powder (see Section 4).

3. REFERENCED STANDARDS

3.1 The latest issue, revision, or amendment of the referenced standards in effect at the time of publication of this standard is shown below, and governs, unless otherwise specified. Standards marked with an asterisk (*) are referenced only in the Notes, which are not requirements of this standard.

3.2 If there is a conflict between the requirements of any of the cited referenced standards and this standard, the requirements of this standard governs.

3.3 SSPC STANDARDS AND JOINT STANDARDS:

Guide 13 (2004)	Guide for the Identification and Use of Industrial Coating Systems in Computerized Product Databases
PA 2 (2015)	Measurement of Dry Paint Thickness with Magnetic Gauges
PA 12 (2012)	Preparation of Uncontaminated Rusted Steel Test Panels
PA 15 (2013)	Material and Preparation Requirements for Steel Test Panels Used to Evaluate the Performance of Industrial Coatings
PA 16 (2012)	Method for Evaluating Scribe Undercutting on Coated Steel Test Panels Following Corrosion Testing
SP 1 (2015)	Solvent Cleaning
SP 2 (2004)	Hand Tool Cleaning
* SP 3 (2004)	Power Tool Cleaning
SP 5/NACE No. 1 (2007)	White Metal Blast Cleaning
* SP 5 (WAB)/NACE WAB-1 (2016)	White Metal Wet Abrasive Blast Cleaning
SP 6/NACE No. 3 (2007)	Commercial Blast Cleaning

¹ ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959. For referenced ASTM standards, visit the ASTM website, <<http://www.astm.org>> For Annual Book of ASTM Standards volume information, refer to the standard's Document Summary page on the ASTM website.

* SP 6 (WAB)/ NACE WAB-6 (2016)	Commercial Wet Abrasive Blast Cleaning
* SP 7/NACE No. 4 (2007)	Brush-Off Blast Cleaning
SP 7 (WAB)/ NACE WAB-4 (2016)	Brush-Off Wet Abrasive Blast Cleaning
* SP 10/NACE No. 2 (2007)	Near-White Blast Cleaning
* SP 10 (WAB)/ NACE WAB-2 (2016)	Near-White Wet Abrasive Blast Cleaning
* SP 11 (2013)	Power Tool Cleaning to Bare Metal
* SP 14/NACE No. 8 (2007)	Industrial Blast Cleaning
* SP 14 (WAB)/ NACE WAB-8 (2016)	Industrial Wet Abrasive Blast Cleaning
* SP 15 (2013)	Commercial Power Tool Cleaning
VIS 2 (2002)	Standard Method of Evaluating Degree of Rusting on Painted Steel Surfaces

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

D522/D522M-13	Standard Test Methods for Mandrel Bend Test of Attached Organic Coatings
D562-10(2014)	Standard Test Method for Consistency of Paints Using the Stormer-type Viscometer
D609-00(2012)	Standard Practice for Preparation of Cold- Rolled Steel Panels for Testing Paint, Varnish, Conversion Coatings, and Related Coating Products
D660-93(2011)	Standard Test Method for Evaluating Degree of Checking of Exterior Paints
D661-93(2011)	Standard Test Method for Evaluating Degree of Cracking of Exterior Paints
D714-02(2009)	Standard Test Method for Evaluating Degree of Blistering of Paints
D962-81(2014)	Specification for Aluminum Powder and Paste Pigments for Paints
D1296-01(2012)	Standard Test Method for Odor of Volatile Solvents and Diluents

* D1475-13	Standard Test Method for Density of Liquid Coatings, Inks, and Related Products
* D1640-14	Standard Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature
* D2369- 10(2015)e1	Standard Test Method for Volatile Content of Coatings
* D2371-85(2010)	Standard Test Method for Pigment Content of Solvent- Reducible Paints
* D2621-87(2011)	Standard Test Method for Infrared Identification of Vehicle Solids from Solvent-Reducible Paints
D3359-09e2	Standard Test Methods for Measuring Adhesion by Tape Test
D3924-80(2011)	Environment for Conditioning and Testing Paint, Varnish, Lacquer, and Related Materials
D3925-02(2015)	Standard Practice for Sampling Liquid Paints and Related Pigmented Coatings

3.5 UNITED NATIONS STANDARD²

GHS (2015)	Globally Harmonized System of Classification and Labelling of Chemicals (GHS), 6th Revised Edition
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4. COMPOSITION REQUIREMENTS

4.1 ALUMINUM REQUIREMENT: The aluminum metal used must be certified as meeting ASTM D962 and must constitute a minimum of 6.0% by weight of the dried film.

4.2 RESIN REQUIREMENT: The epoxy resin together with the curing agent, as described in Section 2.1.1, must constitute at least 60% by weight of total solids (see Note 12.5).

4.3 PIGMENT REQUIREMENT: Lead or chromate based pigments are prohibited.

4.4 ANALYTICAL TEST DATA: If required, the coating manufacturer must provide certificates of analysis for coating batches qualified by independent testing to meet this standard for use in verifying batch-to-batch consistency of material (see Notes 12.6 and 12.7).

5. STANDARD TESTING CONDITIONS

5.1 ATMOSPHERIC CONDITIONS: Unless otherwise specified for specific tests, apply and cure all coatings under

² United Nations Economic Commission for Europe, Transport Division, Palais des Nations, CH - 12 Geneva 10, Switzerland. Copies of this standard may be obtained from the United Nations Publications Customer Service, Nations E.O. Network, 15200, 15200 NBN Way, Ridge Summit PA 17124 <<https://shop.un.org/section/publications/page-15>>