

Elastomeric, Water Based, High-Build, Flat, Performance-Based Coating for Masonry and Concrete

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Scope

- 1.1 This standard sets requirements for three levels of performance for elastomeric exterior waterborne high-build coatings suitable for use on above-ground masonry or concrete substrates such as concrete masonry unit (CMU) block walls, precast or poured-in-place concrete, concrete tilt-up construction, stucco, and fiber cement siding. The performance levels are based on results of material testing for weathering and chemical resistance properties, and testing for physical properties, such as tensile elongation and water vapor permeance.

Description

- 2.1 Coatings described by this standard are water-based resin formulations that dry to form elastomeric “flat” exterior waterborne high-build coatings (see Note 7.1).⁽¹⁾
- 2.2 Coatings meeting the requirements of this standard are suitable for exposures in SSPC Environmental Zones 1B (exterior, normally dry), and 2A (frequently wet by fresh water, excluding continuous immersion), and in exposure zone C1 (very low corrosivity) as defined in ISO 12944-2.⁽²⁾ Each coating level provides increasing performance for the material property requirements shown in Section 5. The user should select the performance level based on the exposure and durability requirements for the project.
- 2.3 Depending upon formulation, these coatings are applied by airless spray, brush, or roller in one or multiple coats to meet the recommended dry film thickness (DFT).

Referenced Standards

- 3.1 The latest issue, revision, or amendment of the referenced documents in effect on the date of invitation to bid shall govern unless otherwise specified. Those documents marked with an asterisk (*) are referenced only in the Notes, which are not requirements of this standard.

3.2 AMPP STANDARDS:

SSPC-PA 9	Measurement of Dry Organic Coating Thickness on Cementitious Substrates Using Ultrasonic Gages
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3.3 ASTM STANDARDS:⁽³⁾

ASTM D522	Standard Test Methods for Mandrel Bend Test of Attached Organic Coatings
ASTM D523	Standard Test Method for Specular Gloss
* ASTM D562	Standard Test Method for Consistency of Paints Measuring Krebs Unit (KU) Viscosity Using a Stormer-Type Viscometer
ASTM D1001	Standard Test Method for Measurement of Dry-Film Thickness of Coatings Using Micrometers
ASTM D1308	Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes
* ASTM D1475	Standard Test Method for Density of Liquid Coatings, Inks, and Related Products
ASTM D1640	Standard Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature
ASTM D1653	Standard Test Method for Water Vapor Permeability of Organic Coating Film

⁽¹⁾ In this standard, a “flat” coating is defined as a coating having maximum 60-degree gloss reading of 5 units, or a maximum 85-degree reading of 10 gloss units when evaluated in accordance with ASTM D523.

⁽²⁾ International Organization for Standardization (ISO), Case Postale 56, Geneva CH-1211, Switzerland. In the United States, ISO standards may be obtained from the American National Standards Institute (ANSI) at www.ansi.org.

⁽³⁾ ASTM International, 100 Barr Harbor Road, West Conshohocken PA, 19248. Standards are available online at www.astm.org.