

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

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

This AMPP standard represents a consensus of those individual members who have reviewed this document, its scope, and provisions. Its acceptance does not in any respect preclude anyone, whether he or she has adopted the standard or not, from manufacturing, marketing, purchasing, or using products, processes, or procedures not in conformance with this standard. Nothing contained in this AMPP standard is to be construed as granting any right, by implication or otherwise, to manufacture, sell, or use in connection with any method, apparatus, or product covered by Letters Patent, or as indemnifying or protecting anyone against liability for infringement of Letters Patent. This standard represents minimum requirements and should in no way be interpreted as a restriction on the use of better procedures or materials. Neither is this standard intended to apply in all cases relating to the subject. Unpredictable circumstances may negate the usefulness of this standard in specific instances. AMPP assumes no responsibility for the interpretation or use of this standard by other parties and accepts responsibility for only those official AMPP interpretations issued by AMPP in accordance with its governing procedures and policies which preclude the issuance of interpretations by individual volunteers.

Users of this AMPP standard are responsible for reviewing appropriate health, safety, environmental, and regulatory documents and for determining their applicability in relation to this standard prior to its use. This AMPP standard may not necessarily address all potential health and safety problems, or environmental hazards associated with the use of materials, equipment, and/or operations detailed or referred to within this standard. Users of this AMPP standard are also responsible for establishing appropriate health, safety, and environmental protection practices, in consultation with appropriate regulatory authorities, if necessary, to achieve compliance with any existing applicable regulatory requirements prior to the use of this standard.

CAUTIONARY NOTICE: AMPP standards are subject to periodic review and may be revised or withdrawn at any time in accordance with AMPP technical committee procedures. AMPP requires that action be taken to reaffirm, revise, or withdraw this standard no later than five years from the date of initial publication and subsequently from the date of each reaffirmation or revision. The user is cautioned to obtain the latest edition. Purchasers of AMPP standards may receive current information on all standards and other AMPP/NACE/SSPC publications by contacting AMPP Customer Support, 15835 Park Ten Place, Houston, Texas 77084-5145 (Tel: +1-281-228-6200, email: www.customersupport@ampp.org).

Document History:

2024-03-08: Revised by AMPP Standards Committee (SC) 12, Concrete Infrastructure

2015-11-24: Developed by SSPC C.8.2, Commercial Coating Materials

AMPP values your input. To provide feedback on this standard, please contact: standards@ampp.org

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

- Section 1 Scope4
- Section 2 Description4
- Section 3 Referenced Standards4
 - 3.2 AMPP Standards.....4
 - 3.3 ASTM Standards.....4
 - 3.4 United Nations Standards.....5
 - 3.5 International Organization for Standardization (ISO) Standards.....5
- Section 4 Standard Testing Conditions5
 - 4.1 Accelerated Test Panels.....5
 - 4.2 Concrete Test Panels.....5
 - 4.3 Free Film Test Specimens.....5
 - 4.4 Dry Film Thickness on Test Panels.....6
- Section 5 Material Requirements6
 - 5.3 Physical Property Requirements.....6
 - 5.4 Weathering Requirements.....7
 - 5.5 Chemical, Alkali, and Biotic Resistance Requirements.....7
- Section 6 Container Labeling and Data Sheet Information8
- Section 7 Notes.....8
 - 7.1 VOC Content.....8
 - 7.2 Quality Assurance Tests8

- Table 1 Physical Property Requirements of Cured Coating.....6
- Table 2 Weathering Requirements7
- Table 3 Chemical, Alkali, and Biotic Resistance Requirements.....7

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
-----------	--

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 D1005	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.