



Standard Specification for Aluminum Pigmented Emulsified Asphalt Used as a Protective Coating for Roofing¹

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1. Scope

1.1 This specification covers aluminum pigmented emulsified asphalt suitable for application as a protective coating for built-up roofs and other exposed surfaces by brush, roller, or spray application. The surfaces to which this product is applied are expected to have positive drainage as the coating is not anticipated for use where ponding conditions exist. The product is suitable for use on sheet metal, and smooth or granule surfaced emulsion, conventional BUR, and modified bitumen systems.

1.2 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

1.3 The user is cautioned that aluminum pigmented emulsified asphalt may generate a reaction resulting in the evolution of hydrogen gas. Use caution when opening containers.

1.4 *This standard may involve hazardous materials, operations, and equipment. This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory requirements prior to use.*

2. Referenced Documents

2.1 ASTM Standards:

B 209 Specification for Aluminum and Aluminum-Alloy Sheet and Plate²

D 562 Test Method for Consistency of Paints Measuring Krebs Unit (KU) Viscosity Using a Stormer-Type Viscometer³

D 2824 Specification for Aluminum-Pigmented Asphalt Roof Coatings, Nonfibered, Asbestos Fibered, and Fibered Without Asbestos⁴

D 2939 Test Methods for Emulsified Bitumens Used as Protective Coatings⁴

D 6356 Test Method for Hydrogen Gas Generation of Aluminum Emulsified Asphalt Used as a Protective Coating for Roofing

G 154 Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials⁵

3. Classification

3.1 Aluminum pigmented emulsified asphalt covered by this specification are of the general types such as:

3.1.1 *Type I Non-fibered*, containing no fiber.

3.1.2 *Type II Fibered*, containing asbestos fiber.

3.1.3 *Type III Fibered*, containing no asbestos fiber.

4. Physical Requirements

4.1 *Uniformity*—After a thoroughly stirred sample has stood for 72 h at room temperature $23.9 \pm 1.7^\circ\text{C}$ ($75 \pm 3.0^\circ\text{F}$) the aluminum emulsion shall be of smooth, uniform consistency without separation of settlement in storage to the extent that it cannot be readily dispersed by moderate stirring.

4.2 *Consistency*—The aluminum emulsion shall be of suitable consistency for application above freezing by brush, roller, or suitable spray equipment without thinning with water or heating, and shall bond to either damp or dry surfaces to produce a film in which the aluminum pigment forms a bright reflective surface when applied according to manufacturers' recommendations.

4.3 Application of the aluminum emulsion shall be between 10 and 37.8°C (50 and 100°F) surface temperature. At temperatures above 37.8°C (100°F), a fine water mist to aid cooling of the roof surface to be coated prior to application is recommended. The amount of water applied to the surface should be sufficient for dampening without any glistening surface water.

4.4 The aluminum emulsion shall conform to the additional requirements prescribed in Tables 1 and 2.

¹ This specification is under the jurisdiction of ASTM Committee D08 on Roofing and Waterproofing and is the direct responsibility of Subcommittee D08.09 on Bituminous Emulsions.

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² *Annual Book of ASTM Standards*, Vol 02.02.

³ *Annual Book of ASTM Standards*, Vol 06.01.

⁴ *Annual Book of ASTM Standards*, Vol 04.04.

⁵ *Annual Book of ASTM Standards*, Vol 14.04.