



Standard Guide for Design of Built-Up Bituminous Membrane Waterproofing Systems for Building Decks¹

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1. Scope

1.1 This guide describes the design of fully adhered built-up bituminous membrane waterproofing systems for plaza deck and promenade construction over occupied spaces of buildings where covered by a separate wearing course.

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 *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 limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:

- C 33 Specification for Concrete Aggregates²
- C 578 Specification for Rigid, Cellular Polystyrene Thermal Insulation³
- C 717 Terminology of Building Seals and Sealants⁴
- C 755 Practice for Selection of Vapor Barriers for Thermal Insulation³
- C 1193 Guide for Use of Joint Sealants⁴
- C 1299 Guide for Use in Selection of Liquid-Applied Sealants⁴
- C 1472 Guide for Calculating Movement and Other Effects When Establishing Sealant Joint Width⁴
- D 41 Specification for Asphalt Primer Used in Roofing, Dampproofing, and Waterproofing⁵
- D 43 Specification for Coal Tar Primer Used in Roofing, Dampproofing, and Waterproofing⁵
- D 173 Specification for Bitumen-Saturated Cotton Fabrics Used in Roofing and Waterproofing⁵
- D 226 Specification for Asphalt-Saturated Organic Felt

- Used in Roofing and Waterproofing⁵
- D 227 Specification for Coal-Tar Saturated Organic Felt Used in Roofing and Waterproofing⁵
- D 312 Specification for Asphalt Used in Roofing⁵
- D 449 Specification for Asphalt Used in Dampproofing and Waterproofing⁵
- D 450 Specification for Coal-Tar Pitch Used in Roofing, Dampproofing, and Waterproofing⁵
- D 1079 Terminology Relating to Roofing, Waterproofing, and Bituminous Materials⁵
- D 1327 Specification for Bitumen-Saturated Woven Burlap Fabrics Used in Roofing and Waterproofing⁵
- D 1668 Specification for Glass Fabrics (Woven and Treated) for Roofing and Waterproofing⁵
- D 2178 Specification for Asphalt Glass Felt Used in Roofing and Waterproofing⁵
- D 2626 Specification for Asphalt-Saturated and Coated Organic Felt Base Sheet Used in Roofing⁵
- D 2822 Specification for Asphalt Roof Cement⁵
- D 4022 Specification for Coal Tar Roof Cement, Asbestos Containing⁵
- D 4586 Specification for Asphalt Roof Cement, Asbestos Free⁵
- D 4601 Specification for Asphalt-Coated Glass Fiber Base Sheet Used in Roofing⁵
- D 4990 Specification for Coal Tar Glass Felt Used in Roofing and Waterproofing⁵
- D 5295 Guide for Preparation of Concrete Surfaces for Adhered (Bonded) Membrane Waterproofing Systems⁵
- D 5898 Guide for Standard Details for Adhered Sheet Waterproofing⁵
- D 5957 Guide for Flood Testing Horizontal Waterproofing Installations⁵
- D 6152 Specification for SEBS-Modified Mopping Asphalt Used in Roofing⁵
- D 6162 Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using a Combination of Polyester and Glass Fiber Reinforcements⁵
- D 6163 Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using Glass Fiber Reinforcements⁵
- D 6164 Specification for Styrene Butadiene Styrene (SBS)

¹ This guide is under the jurisdiction of ASTM Committee C24 on Building Seals and Sealants and is the direct responsibility of Subcommittee C24.80 on Building Deck Waterproofing Systems.

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² Annual Book of ASTM Standards, Vol 04.02.

³ Annual Book of ASTM Standards, Vol 04.06.

⁴ Annual Book of ASTM Standards, Vol 04.07.

⁵ Annual Book of ASTM Standards, Vol 04.04.