



Designation: D4867/D4867M – 22^{ε1}

Standard Test Method for Effect of Moisture on Asphalt Mixtures¹

This standard is issued under the fixed designation D4867/D4867M; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

^{ε1} NOTE—Eq 1 was editorially corrected in October 2024.

1. Scope

1.1 This test method covers procedures for preparing and testing laboratory-compacted asphalt mixture specimens for the purpose of measuring the effect of water on the tensile strength of the paving mixture. This test method is applicable to dense mixtures such as those appearing in the Table for Composition of Bituminous Paving Mixtures in Specification D3515. This test method can be used to evaluate the effect of moisture with or without antistripping additives including liquids and pulverulent solids such as hydrated lime or portland cement.

1.2 The values stated in either SI units or inch-pound units in brackets shall be regarded separately as standard. The values in each system may not be exact equivalents; therefore, each system must be used independently of the other, without combining values in any way.

1.3 The text of this standard references notes and footnotes which provide explanatory material. These notes and footnotes (excluding those in tables and figures) shall not be considered as requirements of the standard.

1.4 *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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.5 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

¹ This test method is under the jurisdiction of ASTM Committee D04 on Road and Paving Materials and is the direct responsibility of Subcommittee D04.22 on Effect of Water and Other Elements on Asphalt Coated Aggregates.

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2. Referenced Documents

2.1 ASTM Standards:²

D8 Terminology Relating to Materials for Roads and Pavements

D979/D979M Practice for Sampling Asphalt Mixtures

D1074 Test Method for Compressive Strength of Asphalt Mixtures

D1561/D1561M Practice for Preparation of Bituminous Mixture Test Specimens by Means of California Kneading Compactor (Withdrawn 2022)³

D2041/D2041M Test Method for Theoretical Maximum Specific Gravity and Density of Asphalt Mixtures

D2726/D2726M Test Method for Bulk Specific Gravity and Density of Non-Absorptive Compacted Asphalt Mixtures

D3203 Test Method for Percent Air Voids in Compacted Asphalt Mixtures

D3387 Test Method for Compaction and Shear Properties of Bituminous Mixtures by Means of the U.S. Corps of Engineers Gyrotory Testing Machine (GTM) (Withdrawn 2020)³

D3496 Practice for Preparation of Bituminous Mixture Specimens for Dynamic Modulus Testing (Withdrawn 2010)³

D3515 Specification for Hot-Mixed, Hot-Laid Bituminous Paving Mixtures (Withdrawn 2009)³

D3549/D3549M Test Method for Thickness or Height of Compacted Asphalt Mixture Specimens

D3665 Practice for Random Sampling of Construction Materials

D3666 Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at www.astm.org/contact. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ The last approved version of this historical standard is referenced on www.astm.org.