



Designation: D7870/D7870M – 20

Standard Practice for Moisture Conditioning Compacted Asphalt Mixture Specimens by Using Hydrostatic Pore Pressure¹

This standard is issued under the fixed designation D7870/D7870M; 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 reappraisal. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reappraisal.

1. Scope

1.1 This practice includes procedures for preparing compacted asphalt mixture specimens, exposing the specimens to hydrostatic pore pressure inside an enclosed chamber, and guidance on testing the specimens for the effect of water on the tensile strength or change in other properties of the asphalt mixture, such as density, modulus, etc.

1.2 Specimens conditioned according to this practice can be tested using methods and test procedures referenced in this document, and those results may provide information as to the effect of the moisture conditioning of this practice on the moisture sensitivity of those mixtures.

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 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in nonconformance with the standard.

1.5 *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.*

1.6 *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.*

2. Referenced Documents

2.1 *ASTM Standards:*²

D8 Terminology Relating to Materials for Roads and Pavements

D979/D979M Practice for Sampling Bituminous Paving Mixtures

D1561/D1561M Practice for Preparation of Bituminous Mixture Test Specimens by Means of California Kneading Compactor

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

D3665 Practice for Random Sampling of Construction Materials

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

D4013 Practice for Preparation of Test Specimens of Bituminous Mixtures by Means of Gyrotory Shear Compactor (Withdrawn 2013)³

D4867/D4867M Test Method for Effect of Moisture on Asphalt Concrete Paving Mixtures

D5361/D5361M Practice for Sampling Compacted Asphalt Mixtures for Laboratory Testing

D6752/D6752M Test Method for Bulk Specific Gravity and Density of Compacted Asphalt Mixtures Using Automatic Vacuum Sealing Method

D6925 Test Method for Preparation and Determination of the Relative Density of Asphalt Mix Specimens by Means of the Superpave Gyrotory Compactor

D6926 Practice for Preparation of Asphalt Mixture Specimens Using Marshall Apparatus

D6927 Test Method for Marshall Stability and Flow of Asphalt Mixtures

D6931 Test Method for Indirect Tensile (IDT) Strength of Asphalt Mixtures

¹ This practice 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.

Current edition approved May 1, 2020. Published May 2020. Originally approved in 2013. Last previous edition approved in 2013 as D7870/D7870M – 13. DOI: 10.1520/D7870_D7870M-20.

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. 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.