



Designation: D8360 – 22

Standard Test Method for Determination of Rutting Tolerance Index of Asphalt Mixture Using the Ideal Rutting Test¹

This standard is issued under the fixed designation D8360; 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.

1. Scope

1.1 This test method covers the procedures for preparing, testing, and measuring asphalt mixture rutting resistance at high temperatures using cylindrical laboratory-prepared asphalt mix samples or pavement cores. The test method describes the determination of the rutting tolerance index, RT_{Index} , and other parameters determined from the load-displacement curve. These parameters can be used to evaluate the resistance of asphalt mixtures to rutting.

1.2 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

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 within-laboratory repeatability standard deviation of rutting tolerance index has been determined to be 2.42, based on two labs, 30 test replicates, and ten different samples. The between-laboratory reproducibility of this test method is being determined and will be available on or before December 31, 2026. Therefore, this standard should not be used for acceptance or rejection of a material for purchasing purpose.

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.*

¹ This test method is under the jurisdiction of ASTM Committee D04 on Road and Paving Materials and is the direct responsibility of Subcommittee D04.26 on Fundamental/Mechanistic Tests.

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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 Bituminous Paving Mixtures

D3203/D3203M Test Method for Percent Air Voids in Compacted Asphalt Mixtures

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

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

D6926 Practice for Preparation of Asphalt Mixture Specimens Using Marshall Apparatus

D6927 Test Method for Marshall Stability and Flow of Asphalt Mixtures

2.2 AASHTO Standards:³

R 30 Practice for Mixture Conditioning of Hot Mix Asphalt (HMA)

T 324 Standard Method of Test for Hamburg Wheel-Track Testing of Compacted Asphalt Mixtures

T 340 Standard Method of Test for Determining Rutting Susceptibility of Hot Mix Asphalt (HMA) Using the Asphalt Pavement Analyzer (APA)

T 378 Standard Method of Test for Determining the Dynamic Modulus and Flow Number for Asphalt Mixtures Using the Asphalt Mixture Performance Tester (AMPT)

TP 116 Standard Method of Test for Rutting Resistance of Asphalt Mixtures Using Incremental Repeated Load Permanent Deformation (iRLPD)

3. Terminology

3.1 *Definitions*—For definitions of terms used in this standard, refer to Terminology D8.

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 Available from American Association of State Highway and Transportation Officials (AASHTO), 444 N. Capitol St., NW, Suite 249, Washington, DC 20001, <http://www.transportation.org>.