



Designation: D6140 – 22

Standard Test Method to Determine Asphalt Retention of Paving Fabrics Used in Asphalt Paving for Full-Width Applications¹

This standard is issued under the fixed designation D6140; 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 is an index test that covers a procedure for determining the asphalt retention for paving fabrics. Paving fabrics are used in a fabric membrane interlayer system in pavements before the placement of an asphaltic overlay.

1.2 This test method shows the values in both SI units and inch-pound units. SI units is the name for the system of metric units known as the International System of Units. Inch-pound units is the correct name for the customary units used in the United States. The values in inch-pound units are provided 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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.4 *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

D123 Terminology Relating to Textiles

D3381/D3381M Specification for Viscosity-Graded Asphalt Binder for Use in Pavement Construction

D4439 Terminology for Geosynthetics

D4632/D4632M Test Method for Grab Breaking Load and Elongation of Geotextiles

¹ This test method is under the jurisdiction of ASTM Committee D35 on Geosynthetics and is the direct responsibility of Subcommittee D35.03 on Permeability and Filtration.

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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. Terminology

3.1 Definitions:

3.1.1 *asphalt retention, n*—the volume of asphalt cement retained by paving fabrics per unit area of specimen after submersion in asphalt cement.

3.1.2 *atmosphere for testing geotextiles, n*—air maintained at a relative humidity of 50 to 70 % and a temperature of 21 ± 2 °C (70 ± 4 °F).

3.1.3 *paving fabrics, n*—geotextile used for paving applications.

3.2 For definitions of other terms relating to geotextiles, refer to Terminology **D4439**. For definitions of other terms relating to textiles, refer to Terminology **D123**.

4. Summary of Test Method

4.1 Test specimens are individually weighed prior to being submerged in an asphalt cement that will be used for the overlay. The asphalt cement is maintained at a specified temperature. After submerging the specimens in the asphalt cement test, the specimens are hung to drain in the oven for a specified period of time at the same oven temperature.

4.2 Upon completion of specimen submersion in asphalt, and draining, the individual specimens are weighed and asphalt retention is determined.

5. Significance and Use

5.1 The asphalt retention is a test procedure for full-width paving fabrics. The use of this test method is to establish an index value by providing standard criteria and a basis for uniform reporting.

5.2 This procedure is applicable for testing conditioned specimens (see **8.1**). The results obtained may vary, depending on which type of asphalt cement is used for the test. Unless stated otherwise, use Grade PG 64-22 as defined in Specification **D3381/D3381M** or equivalent asphalt cement.

5.3 This procedure is applicable whenever it is desired to determine an index asphalt retention of paving fabric.

5.4 If it becomes necessary for the purchaser and the seller to use this test method for acceptance testing, the statistical bias, if any, between the purchaser's and seller's laboratories