



Designation: D6461/D6461M – 16

Standard Specification for Silt Fence Materials¹

This standard is issued under the fixed designation D6461/D6461M; 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 specification covers requirements and test methods for geotextile fabrics and associated components used in temporary silt fence applications. This is a material purchasing specification based on AASHTO M288.

1.2 This specification is applicable to the use of a geotextile as a vertical permeable interceptor designed to remove suspended soil from overland, nonconcentrated water flow. The function of a temporary silt fence is to trap and allow settlement of soil particles from sediment laden water. The purpose is to greatly limit the transport of eroded soil from the construction site by water runoff.

NOTE 1—It should be noted that proper installation and maintenance are critical for the effective functioning of silt fence.

1.3 The tests used to characterize the silt fence are intended to ensure good workmanship and quality and are not necessarily adequate for design purposes in view of the wide variety of possible sediments and performance objectives.

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 non-conformance with the standard.

NOTE 2—Although this specification should be acceptable in most erosion control applications, it should be noted that an alternative silt fence specification with a higher flow rate, may be required in areas that are susceptible to higher water runoff.

2. Referenced Documents

2.1 *ASTM Standards*:²

D123 [Terminology Relating to Textiles](#)

¹ This specification is under the jurisdiction of ASTM Committee D18 on Soil and Rock and is the direct responsibility of Subcommittee D18.25 on Erosion and Sediment Control Technology.

Current edition approved July 1, 2016. Published July 2016. Originally approved in 1999. Last previous edition approved in 2007 as D6461 – 99 (2007)², which was withdrawn February 2016 and reinstated in July 2016. DOI: 10.1520/D6461_D6461M-16.

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.

D276 [Test Methods for Identification of Fibers in Textiles](#)
D653 [Terminology Relating to Soil, Rock, and Contained Fluids](#)
D4354 [Practice for Sampling of Geosynthetics and Rolled Erosion Control Products\(RECPs\) for Testing](#)
D4355 [Test Method for Deterioration of Geotextiles by Exposure to Light, Moisture and Heat in a Xenon Arc Type Apparatus](#)
D4439 [Terminology for Geosynthetics](#)
D4491 [Test Methods for Water Permeability of Geotextiles by Permittivity](#)
D4632 [Test Method for Grab Breaking Load and Elongation of Geotextiles](#)
D4751 [Test Method for Determining Apparent Opening Size of a Geotextile](#)
D4759 [Practice for Determining the Specification Conformance of Geosynthetics](#)
D4873 [Guide for Identification, Storage, and Handling of Geosynthetic Rolls and Samples](#)
D6637 [Test Method for Determining Tensile Properties of Geogrids by the Single or Multi-Rib Tensile Method](#)
2.2 *AASHTO Standard*:
M288-15 [Standard Specification for Geotextile Specification for Highway Applications](#)³

3. Materials and Manufacture

3.1 Fibers used in the manufacture of geotextiles for silt fence, and the threads used in joining geotextiles by sewing, shall consist of long-chain synthetic polymers composed of at least 95 % by weight of polyolefin or polyester. They shall be formed into a stable network such that the filaments or yarns retain their dimensional stability relative to each other, including selvages.

3.2 Geotextiles and related materials used for temporary silt fence shall conform to the physical requirements of Sections 7 and 8.

3.3 All property values, with the exception of apparent opening size (AOS), in this specification represent minimum average roll values (MARV) in the weakest principle direction

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>.