



Designation: D7001 – 20

Standard Specification for Geocomposites for Pavement Edge Drains and Other High-Flow Applications¹

This standard is issued under the fixed designation D7001; 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 geocomposite drainage panels used in highway, turf, and other high-volume subsurface drainage applications. These products consist of a geotextile wrapped around a polymer core. These products are a minimum of 25 mm (1 in.) thick and are available in 150-mm (6 in.), 300-mm (12 in.), 450-mm (18 in.), and 600-mm (24 in.) widths.

1.2 The requirements of this specification are intended to provide a subsurface drainage geocomposite suitable for drainage of surface and subsurface water, sewerage, and leachates. Products produced in accordance with this specification and intended for pavement drainage applications shall be installed in accordance with Practice [D6088](#).

1.3 The values as stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

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.*

2. Referenced Documents

2.1 ASTM Standards:²

[D1777](#) Test Method for Thickness of Textile Materials

¹ This specification is under the jurisdiction of ASTM Committee [D35](#) on Geosynthetics and is the direct responsibility of Subcommittee [D35.06](#) on Geosynthetic Specifications.

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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.

[D2122](#) Test Method for Determining Dimensions of Thermoplastic Pipe and Fittings

[D3350](#) Specification for Polyethylene Plastics Pipe and Fittings Materials

[D4354](#) Practice for Sampling of Geosynthetics and Rolled Erosion Control Products (RECPs) for Testing

[D4355/D4355M](#) Test Method for Deterioration of Geotextiles by Exposure to Light, Moisture and Heat in a Xenon Arc-Type Apparatus

[D4439](#) Terminology for Geosynthetics

[D4491/D4491M](#) Test Methods for Water Permeability of Geotextiles by Permittivity

[D4533/D4533M](#) Test Method for Trapezoid Tearing Strength of Geotextiles

[D4632/D4632M](#) Test Method for Grab Breaking Load and Elongation of Geotextiles

[D4716/D4716M](#) Test Method for Determining the (In-plane) Flow Rate per Unit Width and Hydraulic Transmissivity of a Geosynthetic Using a Constant Head

[D4751](#) Test Methods for Determining Apparent Opening Size of a Geotextile

[D4833/D4833M](#) Test Method for Index Puncture Resistance of Geomembranes and Related Products

[D6088](#) Practice for Installation of Geocomposite Pavement Drains

[D6241](#) Test Method for Static Puncture Strength of Geotextiles and Geotextile-Related Products Using a 50-mm Probe

[D6244](#) Test Method for Vertical Compression of Geocomposite Pavement Panel Drains

[D6364](#) Test Method for Determining Short-Term Compression Behavior of Geosynthetics

[D6707/D6707M](#) Specification for Circular-Knit Geotextile for Use in Subsurface Drainage Applications

2.2 Other Document:³

[AASHTO M288](#) Geotextile Materials

3. Terminology

3.1 Definitions:

³ Available from American Association of State Highway and Transportation Officials (AASHTO), 444 N. Capitol St., NW, Suite 249, Washington, DC 20001.