



Designation: D6389 – 23

Standard Practice for Tests to Evaluate the Chemical Resistance of Geotextiles to Liquids¹

This standard is issued under the fixed designation D6389; 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 practice describes the procedures used for testing geotextiles for chemical resistance to liquids. Reinforcement geotextiles can also be tested per Practice [D6213](#).

1.2 This practice describes test methods for measuring changes in planar dimensions, tensile properties, and other optional physical, mechanical, and hydraulic properties caused by immersion in test liquids which may be representative of anticipated end-use conditions. This practice may be used to assess the extent to which a product's as-manufactured properties are affected by such immersion.

1.3 This practice is intended to be used in conjunction with either Practice [D5322](#) or [D5496](#). The scope of this practice is limited to testing and reporting procedures for unexposed and exposed geotextile samples.

1.4 Evaluation or interpretation of test data is beyond the scope of this practice.

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.* For specific warning statements, see Section [7](#).

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 practice is under the jurisdiction of ASTM Committee [D35](#) on Geosynthetics and is the direct responsibility of Subcommittee [D35.02](#) on Endurance Properties.

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2. Referenced Documents

2.1 ASTM Standards:²

- [D16 Terminology for Paint, Related Coatings, Materials, and Applications](#)
- [D123 Terminology Relating to Textiles](#)
- [D883 Terminology Relating to Plastics](#)
- [D1238 Test Method for Melt Flow Rates of Thermoplastics by Extrusion Plastometer](#)
- [D1695 Terminology of Cellulose and Cellulose Derivatives](#)
- [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](#)
- [D4595/D4595M Test Method for Tensile Properties of Geotextiles by the Wide-Width Method](#)
- [D4603 Test Method for Determining Inherent Viscosity of Poly\(Ethylene Terephthalate\) \(PET\) by Glass Capillary Viscometer](#)
- [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](#)
- [D5199 Test Method for Measuring the Nominal Thickness of Geosynthetics](#)
- [D5261 Test Method for Measuring Mass per Unit Area of Geotextiles](#)
- [D5322 Practice for Laboratory Immersion Procedures for Evaluating the Chemical Resistance of Geosynthetics to Liquids](#)
- [D5496 Practice for In-Field Immersion Testing of Geosynthetics](#)
- [D5885/D5885M Test Method for Oxidative Induction Time of Polyolefin Geosynthetics by High-Pressure Differential](#)

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.