



Standard Guide for Selection of Test Methods for Prefabricated Vertical Drains (PVD)¹

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1. Scope

1.1 This guide provides recommendations for the selection of appropriate test methods for prefabricated vertical geocomposite drains (sometimes referred to as Wick Drains) used in geotechnical engineering applications to provide consistency in data reporting.

1.2 This guide includes test methods for all types of prefabricated geocomposite drains manufactured in a plant and consisting of a polymeric core structure with a synthetic fabric (geotextile) jacket for filtration.

1.3 This guide is intended to aid all personnel involved in the selection, manufacture, installation, or evaluation of prefabricated vertical drains.

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 and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:

- D 3786 Test Method for Hydraulic Bursting Strength of Textile Fabrics—Diaphragm Bursting Tester Method (Mullen Burst)²
- D 4354 Practice for Sampling of Geosynthetics for Testing³
- D 4439 Terminology for Geotextiles³
- D 4491 Test Method for Water Permeability of Geotextiles by Permittivity³
- D 4533 Test Method for Trapezoid Tearing Strength of Geotextiles³
- D 4632 Test Method for Grab Breaking Load and Elongation of Geotextiles³
- D 4716 Test Method for Determining the (In-Plane) Flow Rate per Unit Width and Hydraulic Transmissivity of a Geosynthetic Using Constant Head³

D 4751 Test Method for Determining Apparent Opening Size of a Geotextile³

D 4759 Practice for Determining Specification Conformance of Geosynthetics³

D 4873 Guide for Identification, Storage and Handling of Geosynthetic Rolls³

D 4884 Test Method for Strength of Sewn or Thermally Bonded Seams of Geotextiles³

D 4886 Test Method for Abrasion Resistance of Geotextiles (Sand Paper / Sliding Block Method)³

D 5101 Test Method for Measuring the Soil-Geotextile System Clogging Potential by the Gradient Ratio³

D 5199 Test Method for Measuring Nominal Thickness of Geotextiles and Geomembranes³

D 5261 Test Method for Measuring Mass per Unit Area of Geotextiles³

D 5321 Test Method for Determining the Coefficient of Soil and Geosynthetic or Geosynthetic and Friction by Direct Shear Method³

D 5322 Practice for Immersion Procedures for Evaluating the Chemical Resistance of Geosynthetics to Liquids³

D 5493 Test Method for Permittivity of Geotextiles Under Load³

D 5496 Practice for In Field Immersion Testing of Geosynthetics³

D 5567 Test Method for Hydraulic Conductivity Ratio (HCR) Testing of Soil/Geotextile Systems³

D 5818 Practice for Obtaining Samples of Geosynthetics from a Test Section for Assessment of Installation Damage³

D 5819 Guide for Selecting Test Methods for Experimental Evaluation of Geosynthetic Durability²

D 6241 Test Method for the Static Puncture Strength of Geotextiles and Geotextile-related Products Using a 50-mm Probe³

D 6364 Test Method for Determining the Short-Term Compression Behavior of Geosynthetics³

D 6389 Practice for Tests to Evaluate the Chemical Resistance of Geotextiles to Liquids³

3. Terminology

3.1 Definitions:

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

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² Annual Book of ASTM Standards, Vol 07.02.

³ Annual Book of ASTM Standards, Vol 04.13.