

# ASTM Volume 04.13, May 2017

## Geosynthetics

### Table of Contents

- D1987-07(2016) Standard Test Method for Biological Clogging of Geotextile or Soil/Geotextile Filters
- D2643/D2643M-08(2013)e1 Standard Specification for Prefabricated Bituminous Geomembrane Used as Canal and Ditch Liner (Exposed Type)
- D4354-12 Standard Practice for Sampling of Geosynthetics and Rolled Erosion Control Products(RECPs) for Testing
- D4355/D4355M-14 Standard Test Method for Deterioration of Geotextiles by Exposure to Light, Moisture and Heat in a Xenon Arc Type Apparatus
- D4437/D4437M-16 Standard Practice for Non-destructive Testing (NDT) for Determining the Integrity of Seams Used in Joining Flexible Polymeric Sheet Geomembranes
- D4439-15a Standard Terminology for Geosynthetics
- D4491/D4491M-17 Standard Test Methods for Water Permeability of Geotextiles by Permittivity
- D4533/D4533M-15 Standard Test Method for Trapezoid Tearing Strength of Geotextiles
- D4594/D4594M-96(2015)e1 Standard Test Method for Effects of Temperature on Stability of Geotextiles
- D4595-11 Standard Test Method for Tensile Properties of Geotextiles by the Wide-Width Strip Method
- D4632/D4632M-15a Standard Test Method for Grab Breaking Load and Elongation of Geotextiles
- D4716/D4716M-14 Standard Test Method for Determining the (In-plane) Flow Rate per Unit Width and Hydraulic Transmissivity of a Geosynthetic Using a Constant Head
- D4751-16 Standard Test Methods for Determining Apparent Opening Size of a Geotextile
- D4759-11 Standard Practice for Determining the Specification Conformance of Geosynthetics
- D4833/D4833M-07(2013)e1 Standard Test Method for Index Puncture Resistance of Geomembranes and Related Products
- D4873/D4873M-16 Standard Guide for Identification, Storage, and Handling of Geosynthetic Rolls and Samples
- D4884/D4884M-14a Standard Test Method for Strength of Sewn or Bonded Seams of Geotextiles
- D4885-01(2011) Standard Test Method for Determining Performance Strength of Geomembranes by the Wide Strip Tensile Method
- D4886-10(2016) Standard Test Method for Abrasion Resistance of Geotextiles (Sand Paper/Sliding Block Method)
- D5101-12 Standard Test Method for Measuring the Filtration Compatibility of Soil-Geotextile Systems
- D5141-11 Standard Test Method for Determining Filtering Efficiency and Flow Rate of the Filtration Component of a Sediment Retention Device

D5199-12 Standard Test Method for Measuring the Nominal Thickness of Geosynthetics

D5261-10 Standard Test Method for Measuring Mass per Unit Area of Geotextiles

D5262-07(2016) Standard Test Method for Evaluating the Unconfined Tension Creep and Creep Rupture Behavior of Geosynthetics

D5321/D5321M-14 Standard Test Method for Determining the Shear Strength of Soil-Geosynthetic and Geosynthetic-Geosynthetic Interfaces by Direct Shear

D5322-98(2009) Standard Practice for Immersion Procedures for Evaluating the Chemical Resistance of Geosynthetics to Liquids

D5323-92(2011) Standard Practice for Determination of 2 % Secant Modulus for Polyethylene Geomembranes

D5397-07(2012) Standard Test Method for Evaluation of Stress Crack Resistance of Polyolefin Geomembranes Using Notched Constant Tensile Load Test

D5493-06(2016) Standard Test Method for Permittivity of Geotextiles Under Load

D5494-93(2011) Standard Test Method for the Determination of Pyramid Puncture Resistance of Unprotected and Protected Geomembranes

D5496-15 Standard Practice for In Field Immersion Testing of Geosynthetics

D5514/D5514M-14 Standard Test Method for Large Scale Hydrostatic Puncture Testing of Geosynthetics

D5567-94(2011) Standard Test Method for Hydraulic Conductivity Ratio (HCR) Testing of Soil/Geotextile Systems

D5596-03(2016) Standard Test Method For Microscopic Evaluation of the Dispersion of Carbon Black in Polyolefin Geosynthetics

D5617-04(2015) Standard Test Method for Multi-Axial Tension Test for Geosynthetics

D5641/D5641M-16 Standard Practice for Geomembrane Seam Evaluation by Vacuum Chamber

D5721-08(2013) Standard Practice for Air-Oven Aging of Polyolefin Geomembranes

D5747/D5747M-08(2013)e1 Standard Practice for Tests to Evaluate the Chemical Resistance of Geomembranes to Liquids

D5818-11 Standard Practice for Exposure and Retrieval of Samples to Evaluate Installation Damage of Geosynthetics

D5819-05(2016) Standard Guide for Selecting Test Methods for Experimental Evaluation of Geosynthetic Durability

D5820-95(2011) Standard Practice for Pressurized Air Channel Evaluation of Dual Seamed Geomembranes

D5884/D5884M-04A(2015)e1 Standard Test Method for Determining Tearing Strength of Internally Reinforced Geomembranes

D5885/D5885M-15 Standard Test Method for Oxidative Induction Time of Polyolefin Geosynthetics by High-Pressure Differential Scanning Calorimetry

D5886-95(2011) Standard Guide for Selection of Test Methods to Determine Rate of Fluid Permeation Through Geomembranes for Specific Applications

D5887/D5887M-16 Standard Test Method for Measurement of Index Flux Through Saturated Geosynthetic Clay Liner Specimens Using a Flexible Wall Permeameter

D5888-06(2016) Standard Guide for Storage and Handling of Geosynthetic Clay Liners

D5889/D5889M-16 Standard Practice for Quality Control of Geosynthetic Clay Liners

D5890-11 Standard Test Method for Swell Index of Clay Mineral Component of Geosynthetic Clay Liners

D5891/D5891M-02(2016)e1 Standard Test Method for Fluid Loss of Clay Component of Geosynthetic Clay Liners

D5970/D5970M-16 Standard Test Method for Deterioration of Geotextiles from Outdoor Exposure

D5993-14 Standard Test Method for Measuring Mass Per Unit of Geosynthetic Clay Liners

D5994/D5994M-10(2015)e1 Standard Test Method for Measuring Core Thickness of Textured Geomembranes

D6072/D6072M-09(2015) Standard Practice for Obtaining Samples of Geosynthetic Clay Liners

D6088-06(2016) Standard Practice for Installation of Geocomposite Pavement Drains

D6102-15 Standard Guide for Installation of Geosynthetic Clay Liners

D6140-00(2014) Standard Test Method to Determine Asphalt Retention of Paving Fabrics Used in Asphalt Paving for Full-Width Applications

D6141-14 Standard Guide for Screening Clay Portion and Index Flux of Geosynthetic Clay Liner (GCL) for Chemical Compatibility to Liquids

D6213-97(2009) Standard Practice for Tests to Evaluate the Chemical Resistance of Geogrids to Liquids

D6214/D6214M-98(2013)e1 Standard Test Method for Determining the Integrity of Field Seams Used in Joining Geomembranes by Chemical Fusion Methods

D6241-14 Standard Test Method for Static Puncture Strength of Geotextiles and Geotextile-Related Products Using a 50-mm Probe

D6243/D6243M-16 Standard Test Method for Determining the Internal and Interface Shear Strength of Geosynthetic Clay Liner by the Direct Shear Method

D6244-06(2011) Standard Test Method for Vertical Compression of Geocomposite Pavement Panel Drains

D6364-06(2011) Standard Test Method for Determining Short-Term Compression Behavior of Geosynthetics

D6365-99(2011) Standard Practice for the Nondestructive Testing of Geomembrane Seams using the Spark Test

D6388-99(2012) Standard Practice for Tests to Evaluate the Chemical Resistance of Geonets to Liquids

D6389-99(2016) Standard Practice for Tests to Evaluate the Chemical Resistance of Geotextiles to Liquids

D6392-12 Standard Test Method for Determining the Integrity of Nonreinforced Geomembrane Seams Produced Using Thermo-Fusion Methods

D6434-12 Standard Guide for the Selection of Test Methods for Flexible Polypropylene Geomembranes

D6454/D6454M-99(2016)e1 Standard Test Method for Determining the Short-Term Compression Behavior of Turf Reinforcement Mats (TRMs)

D6455-11 Standard Guide for the Selection of Test Methods for Prefabricated Bituminous

## Geomembranes (PBGGM)

D6495/D6495M-15 Standard Guide for Acceptance Testing Requirements for Geosynthetic Clay Liners

D6496/D6496M-04A(2015)e1 Standard Test Method for Determining Average Bonding Peel Strength Between Top and Bottom Layers of Needle-Punched Geosynthetic Clay Liners

D6497/D6497M-02(2015)e1 Standard Guide for Mechanical Attachment of Geomembrane to Penetrations or Structures

D6523-00(2014)e1 Standard Guide for Evaluation and Selection of Alternative Daily Covers (ADCs) for Sanitary Landfills

D6524/D6524M-16 Standard Test Method for Measuring the Resiliency of Turf Reinforcement Mats (TRMs)

D6525/D6525M-16 Standard Test Method for Measuring Nominal Thickness of Rolled Erosion Control Products

D6566-17 Standard Test Method for Measuring Mass per Unit Area of Turf Reinforcement Mats

D6567-14 Standard Test Method for Measuring the Light Penetration of a Turf Reinforcement Mat (TRM)

D6574/D6574M-13e1 Standard Test Method for Determining the (In-Plane) Hydraulic Transmissivity of a Geosynthetic by Radial Flow

D6575/D6575M-16 Standard Test Method for Determining Stiffness of Geosynthetics Used as Turf Reinforcement Mats (TRMs)

D6636-01(2011) Standard Test Method for Determination of Ply Adhesion Strength of Reinforced Geomembranes

D6637/D6637M-15 Standard Test Method for Determining Tensile Properties of Geogrids by the Single or Multi-Rib Tensile Method

D6638-11 Standard Test Method for Determining Connection Strength Between Geosynthetic Reinforcement and Segmental Concrete Units (Modular Concrete Blocks)

D6693/D6693M-04(2015)e1 Standard Test Method for Determining Tensile Properties of Nonreinforced Polyethylene and Nonreinforced Flexible Polypropylene Geomembranes

D6706-01(2013) Standard Test Method for Measuring Geosynthetic Pullout Resistance in Soil

D6707/D6707M-06(2016)e1 Standard Specification for Circular-Knit Geotextile for Use in Subsurface Drainage Applications

D6747-15 Standard Guide for Selection of Techniques for Electrical Leak Location of Leaks in Geomembranes

D6766-12 Standard Test Method for Evaluation of Hydraulic Properties of Geosynthetic Clay Liners Permeated with Potentially Incompatible Aqueous Solutions

D6767-16 Standard Test Method for Pore Size Characteristics of Geotextiles by Capillary Flow Test

D6768/D6768M-04(2015)e2 Standard Test Method for Tensile Strength of Geosynthetic Clay Liners

D6817/D6817M-15 Standard Specification for Rigid Cellular Polystyrene Geofoam

D6818-17 Standard Test Method for Ultimate Tensile Properties of Rolled Erosion Control Products

D6826-05(2014)e1 Standard Specification for Sprayed Slurries, Foams and Indigenous Materials Used As Alternative Daily Cover for Municipal Solid Waste Landfills

D6916-06c(2011) Standard Test Method for Determining the Shear Strength Between Segmental Concrete Units (Modular Concrete Blocks)

D6917-16 Standard Guide for Selection of Test Methods for Prefabricated Vertical Drains (PVD)

D6918-09(2014)e1 Standard Test Method for Testing Vertical Strip Drains in the Crimped Condition

D6992-16 Standard Test Method for Accelerated Tensile Creep and Creep-Rupture of Geosynthetic Materials Based on Time-Temperature Superposition Using the Stepped Isothermal Method

D7001-06(2011) Standard Specification for Geocomposites for Pavement Edge Drains and Other High-Flow Applications

D7002-16 Standard Practice for Electrical Leak Location on Exposed Geomembranes Using the Water Puddle Method

D7003/D7003M-03(2013)e1 Standard Test Method for Strip Tensile Properties of Reinforced Geomembranes

D7004/D7004M-03(2013)e1 Standard Test Method for Grab Tensile Properties of Reinforced Geomembranes

D7005/D7005M-16 Standard Test Method for Determining the Bond Strength (Ply Adhesion) of Geocomposites

D7006-03(2013) Standard Practice for Ultrasonic Testing of Geomembranes

D7007-16 Standard Practices for Electrical Methods for Locating Leaks in Geomembranes Covered with Water or Earthen Materials

D7008-08(2013) Standard Specification for Geosynthetic Alternate Daily Covers

D7056-07(2012) Standard Test Method for Determining the Tensile Shear Strength of Prefabricated Bituminous Geomembrane Seams

D7106/D7106M-05(2015)e1 Standard Guide for Selection of Test Methods for Ethylene Propylene Diene Terpolymer (EPDM) Geomembranes

D7176-06(2011) Standard Specification for Non-Reinforced Polyvinyl Chloride (PVC) Geomembranes Used in Buried Applications

D7177/D7177M-05(2015)e1 Standard Specification for Air Channel Evaluation of Polyvinyl Chloride (PVC) Dual Track Seamed Geomembranes

D7178-16e1 Standard Practice for Determining the Number of Constrictions "m" of Non-Woven Geotextiles as a Complementary Filtration Property

D7179-07(2013) Standard Test Method for Determining Geonet Breaking Force

D7180/D7180M-05(2013)e1 Standard Guide for Use of Expanded Polystyrene (EPS) Geofoam in Geotechnical Projects

D7238-06(2012) Standard Test Method for Effect of Exposure of Unreinforced Polyolefin Geomembrane Using Fluorescent UV Condensation Apparatus

D7239-13 Standard Specification for Hybrid Geosynthetic Paving Mat for Highway Applications

D7240-06(2011) Standard Practice for Leak Location using Geomembranes with an Insulating Layer in Intimate Contact with a Conductive Layer via Electrical Capacitance

Technique (Conductive Geomembrane Spark Test)

D7272-06(2011) Standard Test Method for Determining the Integrity of Seams Used in Joining Geomembranes by Pre-manufactured Taped Methods

D7273/D7273M-08(2013)e1 Standard Guide for for Acceptance Testing Requirements for Geonets and Geonet Drainage Geocomposites

D7274-06a(2011) Standard Test Method for Mineral Stabilizer Content of Prefabricated Bituminous Geomembranes (BGM)

D7275-07(2012) Standard Test Method for Tensile Properties of Bituminous Geomembranes (BGM)

D7361-07(2012) Standard Test Method for Accelerated Compressive Creep of Geosynthetic Materials Based on Time-Temperature Superposition Using the Stepped Isothermal Method

D7406-07(2012) Standard Test Method for Time-Dependent (Creep) Deformation Under Constant Pressure for Geosynthetic Drainage Products

D7407-07(2012) Standard Guide for Determining The Transmission of Gases Through Geomembranes

D7408-12 Standard Specification for Non Reinforced PVC (Polyvinyl Chloride) Geomembrane Seams

D7409-15 Standard Test Method for Carboxyl End Group Content of Polyethylene Terephthalate (PET) Yarns

D7465/D7465M-15e1 Standard Specification for Ethylene Propylene Diene Terpolymer (EPDM) Sheet Used In Geomembrane Applications

D7466/D7466M-10(2015)e1 Standard Test Method for Measuring Asperity Height of Textured Geomembranes

D7498/D7498M-09(2014)e1 Standard Test Method for Vertical Strip Drains Using a Large Scale Consolidation Test

D7499/D7499M-09(2014) Standard Test Method for Measuring Geosynthetic-Soil Resilient Interface Shear Stiffness

D7556-10 Standard Test Methods for Determining Small-Strain Tensile Properties of Geogrids and Geotextiles by In-Air Cyclic Tension Tests

D7557/D7557M-09(2013)e1 Standard Practice for Sampling of Expanded Polystyrene Geofoam Specimens

D7613-10 Standard Specification for Flexible Polypropylene Reinforced (fPP-R) and Nonreinforced (fPP) Geomembranes

D7700-15 Standard Guide for Selecting Test Methods for Geomembrane Seams

D7701-11 Standard Test Method for Determining the Flow Rate of Water and Suspended Solids from a Geotextile Bag

D7702/D7702M-14 Standard Guide for Considerations When Evaluating Direct Shear Results Involving Geosynthetics

D7703-16 Standard Practice for Electrical Leak Location on Exposed Geomembranes Using the Water Lance Method

D7737/D7737M-15 Standard Test Method for Individual Geogrid Junction Strength

D7747/D7747M-11e1 Standard Test Method for Determining Integrity of Seams Produced Using Thermo-Fusion Methods for Reinforced Geomembranes by the Strip Tensile Method

D7748/D7748M-14e1 Standard Test Method for Flexural Rigidity of Geogrids, Geotextiles and Related Products

D7749-11 Standard Test Method for Determining Integrity of Seams Produced Using Thermo-Fusion Methods for Reinforced Geomembranes by the Grab Method

D7852-13 Standard Practice for Use of an Electrically Conductive Geotextile for Leak Location Surveys

D7853-13 Standard Test Method for Hydraulic Pullout Resistance of a Geomembrane with Locking Extensions Embedded in Concrete

D7864/D7864M-15 Standard Test Method for Determining the Aperture Stability Modulus of Geogrids

D7865-13 Standard Guide for Identification, Packaging, Handling, Storage and Deployment of Fabricated Geomembrane Panels

D7880/D7880M-13 Standard Test Method for Determining Flow Rate of Water and Suspended Solids Retention from a Closed Geosynthetic Bag

D7909-14 Standard Guide for Placement of Blind Actual Leaks during Electrical Leak Location Surveys of Geomembranes

D7953-14 Standard Practice for Electrical Leak Location on Exposed Geomembranes Using the Arc Testing Method

D7982-15 Standard Practice for Testing of Factory Thermo-Fusion Seams for Fabricated Geomembrane Panels

D8030/D8030M-16 Standard Practice for Sample Preparation for GCCM