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Standard Guide for the Selection of Test Methods for Prefabricated Bituminous Geomembranes (PBG^M)¹

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1. Scope

1.1 This guide provides recommendations for the selection of appropriate test methods for prefabricated bituminous sheet used in geomembrane applications to provide consistency in data reporting.

1.2 This guide includes test methods for all types of composite bituminous geomembranes fabricated in a plant and consisting of a synthetic fabric saturated by a modified bituminous or an oxidized bituminous blend.

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

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:²

- D36 Test Method for Softening Point of Bitumen (Ring-and-Ball Apparatus)
- D471 Test Method for Rubber Property—Effect of Liquids
- D573 Test Method for Rubber—Deterioration in an Air Oven
- D696 Test Method for Coefficient of Linear Thermal Expansion of Plastics Between -30°C and 30°C with a Vitreous Silica Dilatometer
- D746 Test Method for Brittleness Temperature of Plastics and Elastomers by Impact
- D751 Test Methods for Coated Fabrics
- D792 Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement

- D1204 Test Method for Linear Dimensional Changes of Nonrigid Thermoplastic Sheeting or Film at Elevated Temperature
- D1434 Test Method for Determining Gas Permeability Characteristics of Plastic Film and Sheeting
- D3776 Test Methods for Mass Per Unit Area (Weight) of Fabric
- D4354 Practice for Sampling of Geosynthetics 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
- D4595 Test Method for Tensile Properties of Geotextiles by the Wide-Width Strip Method
- D4833 Test Method for Index Puncture Resistance of Geomembranes and Related Products
- D4873 Guide for Identification, Storage, and Handling of Geosynthetic Rolls and Samples
- D4885 Test Method for Determining Performance Strength of Geomembranes by the Wide Strip Tensile Method
- D5199 Test Method for Measuring the Nominal Thickness of Geosynthetics
- D5261 Test Method for Measuring Mass per Unit Area of Geotextiles
- D5262 Test Method for Evaluating the Unconfined Tension Creep and Creep Rupture Behavior of Geosynthetics
- D5321 Test Method for Determining the Coefficient of Soil and Geosynthetic or Geosynthetic and Geosynthetic Friction by the Direct Shear Method
- D5514 Test Method for Large Scale Hydrostatic Puncture Testing of Geosynthetics
- D5641 Practice for Geomembrane Seam Evaluation by Vacuum Chamber
- D5716 Test Method for Measuring the Rate of Well Discharge by Circular Orifice Weir
- D5884 Test Method for Determining Tearing Strength of Internally Reinforced Geomembranes
- D6747 Guide for Selection of Techniques for Electrical Detection of Potential Leak Paths in Geomembranes
- D7003 Test Method for Strip Tensile Properties of Reinforced Geomembranes
- D7006 Practice for Ultrasonic Testing of Geomembranes

¹ This guide is under the jurisdiction of ASTM Committee D35 on Geosynthetics and is the direct responsibility of D35.10 on Geomembranes.

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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.