



Designation: D6566 – 12

Standard Test Method for Measuring Mass per Unit Area of Turf Reinforcement Mats¹

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1. Scope

1.1 This test method covers an index to the determination of mass per unit area of all turf reinforcement mats.

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

1.3 *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

D123 Terminology Relating to Textiles

D1776 Practice for Conditioning and Testing Textiles

D4354 Practice for Sampling of Geosynthetics for Testing

D4439 Terminology for Geosynthetics

2.2 *ISO/DIS Document:*

9864-1990 Mass per Unit Area of Geotextiles³

3. Terminology

3.1 For definitions of textile terms used in this test method, refer to Terminology D123.

3.2 For definitions of terms relating to geotextiles used in this test method, refer to Terminology D4439.

4. Summary of Test Method

4.1 The mass per unit area of a turf reinforcement mat is determined by weighing test specimens of known dimensions, cut from equally spaced distances over the full width of the

laboratory sample. The calculated values are then averaged to obtain the mean mass per unit area of the laboratory sample.

5. Significance and Use

5.1 This test method is used to determine if the turf reinforcement mat meets specifications for mass per unit area. This test method can be used for quality control to determine specimen conformance. This measurement allows for a simple control of the delivered material by a comparison of the mass per unit area of the delivered material and the specified mass per unit area.

5.2 The procedure in this test method may be used for acceptance testing of commercial shipments, but caution is advised since information about between-laboratory precision is incomplete. Comparative tests in accordance with 5.2.1 are advisable.

5.2.1 In case of a dispute arising from differences in reported test results when using the procedures in this test method for acceptance testing of commercial shipments, the purchaser and the manufacturer should conduct comparative tests to determine if there is a statistical bias between their laboratories. Competent statistical assistance is recommended for the investigation of bias. As a minimum, the two parties should take a group of test specimens that are as homogeneous as possible and which are from a lot of material of the type in question. The test specimen should then be randomly assigned in equal numbers to each laboratory for testing. The average results from the two laboratories should be compared using the appropriate student's t-test and an acceptable probability level chosen by the two parties before testing is begun. If a bias is found, either its cause must be found and corrected or the purchaser and the manufacturer must agree to interpret future test results in light of the known bias.

6. Apparatus

6.1 *Balance*, calibrated, with an accuracy of 0.01 g.

7. Sampling

7.1 *Lot Sample*—Divide the test specimens into lots, and for the lot to be tested, take the lot sample in accordance with Practice D4354.

7.2 *Laboratory Sample*—Consider the units in the lot sample as the units in the laboratory sample. For the laboratory

¹ This test method is under the jurisdiction of ASTM Committee D35 on Geosynthetics and is the direct responsibility of Subcommittee D35.05 on Geosynthetic Erosion Control.

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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.

³ Available from American National Standards Institute, 11 W. 42nd St., 13th Floor, New York, NY 10036.