



Designation: D6567 – 23

Standard Test Method for Measuring the Light Penetration of a Rolled Erosion Control Product (RECP)¹

This standard is issued under the fixed designation D6567; 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 test method covers measuring the amount of light that penetrates through a rolled erosion control product.

1.2 This test method does not provide light penetration values for RECPs under variable normal sun and soil conditions. This test method determines nominal light penetration.

1.3 This test method is not to be used to determine a percent ground cover value for RECPs, as the amount of light penetration may include light passing through translucent material or reflecting off surfaces.

1.4 The values stated as a percentage are to be regarded as the standard. The values provided in footcandles are for information only.

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.*

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.*

2. Referenced Documents

2.1 *ASTM Standards:*²

[D123 Terminology Relating to Textiles](#)

[D4354 Practice for Sampling of Geosynthetics and Rolled Erosion Control Products \(RECPs\) for Testing](#)

[D4439 Terminology for Geosynthetics](#)

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.

[E177 Practice for Use of the Terms Precision and Bias in ASTM Test Methods](#)

[E691 Practice for Conducting an Interlaboratory Study to Determine the Precision of a Test Method](#)

3. Terminology

3.1 *Definitions:*

3.1.1 *light penetration, n*—the percent of light incident on the front surface of a material that is emitted from the back surface of the material.

3.2 For definitions of other textile terms used in this test method, refer to Terminology [D123](#).

3.3 For definitions of other terms relating to geotextiles and geomembranes used in this test method, refer to Terminology [D4439](#).

4. Summary of Test Method

4.1 The nominal light penetration of RECPs is determined by the meter reading in footcandles with and without placement of the specimen in a determined location between the light source and the meter.

5. Significance and Use

5.1 Light penetration may be used to control the quality of many RECPs. Light penetration has not been proven to relate to field performance for all materials.

5.2 The light penetration of RECPs may vary considerably, depending on the composite materials used in the matrix of the mat or due to inconsistency within a given mat. To minimize variation, specific sample size and procedures are indicated in this test method to help ensure comparable results.

5.3 This test method may be used to determine the effect of different composite materials and makeup of RECPs on the penetration of light.

5.4 This test method may be used for acceptance testing of commercial shipments of RECPs. Comparative tests as directed in [5.4.1](#) may be advisable.

5.4.1 In case of a dispute arising from differences in reported test results when using this test method for acceptance testing of commercial shipments, the purchaser and the supplier should conduct comparative tests to determine if there is