



Designation: D6460 – 24

Standard Test Method for Determination of Rolled Erosion Control Product (RECP) Performance in Protecting Earthen Channels from Stormwater-Induced Erosion¹

This standard is issued under the fixed designation D6460; 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 the guidelines, requirements and procedures for evaluating the ability of Rolled Erosion Control Products (RECPs) to protect earthen channels from stormwater-induced erosion. Critical elements of this protection are the ability of the RECP to:

1.1.1 Neutralize and absorb the hydraulic force of stormwater, thereby reducing soil particle loosening through “scour” mechanisms;

1.1.2 Slow runoff and encourage sedimentation, thereby reducing soil particle transport downstream;

1.1.3 Absorb shear forces of overland flow;

1.1.4 Trap soil particles beneath; and

1.1.5 Promote the establishment of vegetation.

1.2 This test method utilizes full-scale testing procedures, rather than reduced-scale (bench-scale) simulation, and is patterned after conditions typically found on construction sites prior to and after revegetation work. Further, procedures for evaluation of baseline conditions are provided. Thus, test preparation, test execution, data collection, data analysis and reporting procedures herein are intended to be suitable for testing of bare soil, unvegetated RECP, vegetated soil and vegetated RECP conditions.

1.3 This test method provides a comparative evaluation of an unvegetated RECP to baseline bare soil conditions and a vegetated RECP to a baseline, vegetated condition under controlled and documented conditions.

1.4 The values stated in SI units are to be regarded as standard. The inch-pound units given in parentheses are provided for information purposes 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. Also, the user must comply with prevalent regulatory codes, such as OSHA (Occupational Health and Safety Administration) guidelines, while using the test method.

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

C136/C136M Test Method for Sieve Analysis of Fine and Coarse Aggregates

D422 Test Method for Particle-Size Analysis of Soils (Withdrawn 2016)³

D698 Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³))

D1556/D1556M Test Method for Density and Unit Weight of Soil in Place by Sand-Cone Method (Withdrawn 2024)³

D2922 Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth) (Withdrawn 2007)³

D4318 Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils

D4595/D4595M Test Method for Tensile Properties of Geotextiles by the Wide-Width Method

D6475 Test Method for Measuring Mass per Unit Area of Erosion Control Blankets

D6525/D6525M Test Method for Measuring Nominal Thickness of Rolled Erosion Control Products (Withdrawn 2014)³

¹ This test method is under the jurisdiction of ASTM Committee D18 on Soil and Rock; Subcommittee D18.25 on Erosion and Sediment Control Technology; and is the direct responsibility of Section .02 on Erosion Control Blankets (ECBs).

Current edition approved Feb. 1, 2024. Published March 2024. Originally approved in 1999. Last previous edition approved in 2019 as D6460–19. DOI: 10.1520/D6460-24.

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 The last approved version of this historical standard is referenced on www.astm.org.

*A Summary of Changes section appears at the end of this standard