



Designation: D7560 – 22

Standard Test Method for Determination of Fiber Length Percentages in Hydraulic Erosion Control Products (HECPs)¹

This standard is issued under the fixed designation D7560; 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 Hydraulic erosion control product (HECP) fibers are manufactured and processed to specific length and width dimensions to facilitate the hydraulic application and to prevent clogging of the pump, recirculation pipes, nozzles, and tips. This test method is used to determine the length of the fibers on a percentage basis in an HECP.

1.2 This test method can be used to evaluate an HECP during and after manufacturing. The results can be used for comparative evaluations of the manufacturing process.

1.3 *Units*—The values stated in SI units are to be regarded as the standard. No other units of measurement are included in this standard. Sieve designations are shown in both the standard and alternative designations.

1.4 All observed and calculated values shall conform to the guidelines for significant digits and rounding established in Practice D6026.

1.4.1 The procedures used to specify how data are collected/recorded or calculated in the standard are regarded as the industry standard. In addition, they are representative of the significant digits that generally should be retained. The procedures used do not consider material variation, purpose for obtaining the data, special purpose studies, or any considerations for the user's objectives; and it is common practice to increase or reduce significant digits of reported data to be commensurate with these considerations. It is beyond the scope of this standard to consider significant digits used in analysis methods for engineering design.

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 standard-*

ization 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

D653 Terminology Relating to Soil, Rock, and Contained Fluids

D2974 Test Methods for Determining the Water (Moisture) Content, Ash Content, and Organic Material of Peat and Other Organic Soils

D3740 Practice for Minimum Requirements for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction

D4753 Guide for Evaluating, Selecting, and Specifying Balances and Standard Masses for Use in Soil, Rock, and Construction Materials Testing

D6026 Practice for Using Significant Digits and Data Records in Geotechnical Data

E11 Specification for Woven Wire Test Sieve Cloth and Test Sieves

3. Terminology

3.1 Definitions:

3.1.1 For definitions of common technical terms used in this standard, refer to Terminology D653.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *hydraulically applied, adj*—in erosion control, applying a liquid based substance, such as a water slurry, solution or emulsion, to the soil surface by spraying or dropping using devices such as nozzles, towers, or aerially.

4. Summary of Test Method

4.1 A representative sample is obtained either during manufacturing or from a processed and sealed bag. A test specimen is taken from the representative sample, put in a sieve stack

¹ This test method is under the jurisdiction of ASTM Committee D18 on Soil and Rock and is the direct responsibility of Subcommittee D18.25 on Erosion and Sediment Control Technology.

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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.