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Standard Test Method for Volume of Processed Peat Materials[1]

This standard is issued under the fixed designation D 2978; 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] This test method is under the jurisdiction of ASTM Committee D-18 on Soil and Rock and is the direct responsibility of Subcommittee D18.18 on Peats and Related Materials.

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1. Scope*

1.1 This test method covers the measurement of the volume of loose and baled processed peat expressed as cubic feet.[2]

1.2 *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:*

D 653 Terminology Relating to Soil, Rock, and Contained Fluids[3]

D 3740 Practice for Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction[3]

E 11 Specification for Wire-Cloth Sieves for Testing Purposes[3]

3. Summary of Test Method

3.1 The test method consists of dividing the particles of peat by passing them through a 12.5-m (½-in.) sieve and allowing them to fall into a volume-measuring container.

4. Significance and Use

4.1 This test method may be used to quantify the volume of peats under consideration in commercial transactions.

4.2 The quality of the result produced by this standard is dependent on the competence of the personnel performing it, and the suitability of the equipment and facilities used. Agencies that meet the criteria of Practice D 3740 are generally considered capable of competent and objective testing/sampling/inspection/ and the like. Users of this standard are cautioned that compliance with Practice D 3740 does not in itself assure reliable results. Reliable results depend on many factors; Practice D 3740 provides a means of evaluating some of those factors.

5. Apparatus

5.1 *U. S. Standard Sieve* , 12.5-mm (½-in.), conforming to Specification E 11.

5.2 *Container* of steel or wood bound with metal, having one of the following sets of inside dimensions:

5.2.1 ½ ft^3 = 12 by 12 by 12-in. container with line scribed 6 in. from the bottom.

5.2.2 ¾ ft^3 = 12 by 12 by 12-in. container with line scribed 9 in. from the bottom.

5.2.3 1-ft^3 = 12 by 12 by 12-in. container.

5.2.4 ~~1~~2-ft^3 = 16 by 16-in. base by 13½-in. height.

5.2.5 ~~1~~5-ft^3 = 16 by 16-in. base by 33¾-in. height.

6. Procedure

6.1 *Loose Peat*—Remove the material from the bag or container, pass it through the 12.5-mm (½-in.) sieve and place directly into the measuring box. Pour the contents from approximately 2 ft into the measuring box. Determine the contents of the bag or

[2] Standards for determining the volume and bulk density of undisturbed, in situ peaks are presently being prepared by Committee D – 18.

[3] *Annual Book of ASTM Standards*, Vol 14.02.

container only once. The corners of the measuring box shall be well filled by shaking with a rotary motion, one rotation per second for 5 s without lifting the box from the floor or other surface. When filled, level it off by a straightedge to determine the volume.

6.2 *Baled Peat*—The volume of baled material shall be the product of the height by the area of the base. Measurements must be corrected for outside wrappers. Determine the amount of loose peat in a bale by passing through the 12.5-mm (½-in.) sieve and measuring the amount of loose peat using the 12 by 12 by 12-in. box and the procedure described in 5.1.

7. Report

7.1 Report the volume of peat in cubic feet.

8. Precision and Bias

8.1 *Precision*—Due to the nature of the soil or rock materials tested by this method it is either not feasible or too costly at this time to produce multiple specimens which have uniform physical properties. Any variation observed in the data is just as likely to be due to specimen variation as to operator or laboratory testing variation. Subcommittee D18.18 welcomes proposals that would allow for development of a valid precision statement.

8.2 *Bias*—There is no accepted reference value for this test method, therefore, bias cannot be determined.

9. Keywords

9.1 peat; volume; volume measure

SUMMARY OF CHANGES

In accordance with Committee D18 policy, this section identifies the location of changes to this standard since the last edition (71–(1998)) that may impact the use of this standard.

(1) Terminology D 653 and Practice D 3740 were added to the Referenced Documents Section.
(2) 4.2 was added to the Significance and Use Section.
(3) Typographical errors in 5.2.4 and 5.2.5 were corrected.