



Designation: D5715 – 23

Standard Practice for Estimating the Degree of Humification of Peat and Other Organic Soils (Visual/Manual Method)¹

This standard is issued under the fixed designation D5715; 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 practice covers the visual determination of the degree of humification of peat and other highly organic soils by visually evaluating the color of the water expelled upon compression. This practice is not used for the determination of the degree of organic decomposition of organic matter in mineral soils.

1.2 *This practice offers a set of instructions for performing one or more specific operations. This document cannot replace education or experience and should be used in conjunction with professional judgment. Not all aspects of this practice may be applicable in all circumstances. This ASTM standard is not intended to represent or replace the standard of care by which the adequacy of a given professional service must be judged, nor should this document be applied without consideration of a project's many unique aspects. The word "Standard" in the title of this document means only that the document has been approved through the ASTM consensus process.*

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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.4 *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

¹ This test method is under the jurisdiction of ASTM Committee D18 on Soil and Rock and is the direct responsibility of Subcommittee D18.22 on Media for Plant Growth.

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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.

D653 Terminology Relating to Soil, Rock, and Contained Fluids

D2944 Practice of Sampling Processed Peat Materials for Horticultural Purposes

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

D4427 Classification of Peat Samples by Laboratory Testing

3. Terminology

3.1 Definitions:

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

3.1.2 *organic soils, n*—soil with a high content of carbon-based compounds that are very compressible and have poor load sustaining properties.

3.1.3 *peat, n*—a naturally-occurring highly organic substance derived primarily from plant materials that is distinguished from other organic soil materials by its lower ash content (less than 25 % ash by dry mass—see Practice D2974) and from other phytogenic material of higher rank (that is, lignite coal) by its lower calorific value on a water saturated basis.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *degree of humification, H, n*—is the present visual composition of peat and highly organic soils belonging in one of ten categories with H1 being the least decomposed and H10 being the most decomposed.

4. Significance and Use

4.1 The purpose of this practice is to standardize the routine description of peat and other organic soils for various uses (such as, peatland inventories and resource evaluations). This practice should be used to supplement other field information, such as, site location, surface morphology, surface vegetation, water table, moisture content, fiber content, wood content, and visually identifiable plant types and parts.

NOTE 1—This standard is a visual/manual method and is not meant to replace the more precise method of laboratory classification of peat (see Classification D4427). It should also be noted, this practice is independent of the determination of whether an articular deposit contains peat that is defined in Classification D4427 on the basis of laboratory determination of

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