Designation: D8030/D8030M – 16

# Standard Practice for Sample Preparation for GCCM[1]

This standard is issued under the fixed designation D8030/D8030M; 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 standard practice specifies a set of instructions for preparing samples of geosynthetic cementitious composite mat (GCCM) for index property testing.

1.2 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.

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

1.3.1 For purposes of comparing measured or calculated value(s) with specified limits, the measured or calculated value(s) shall be rounded to the nearest decimal or significant digits in the specified limits.

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

1.4 *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.* Some specific hazards statements are given in Section 7 on Hazards.

## 2. Referenced Documents

2.1 *ASTM Standards:*[2]

C191 Test Methods for Time of Setting of Hydraulic Cement by Vicat Needle

D4439 Terminology for Geosynthetics

D6026 Practice for Using Significant Digits in Geotechnical Data

## 3. Terminology

3.1 *Definitions:* For definitions of common technical terms used in this standard, refer to Terminology D4439.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *cured, adj*—a description of the state of a GCCM after hydration for a specified period of time under specified conditions, followed by a period of time where the GCCM is kept under a specified environmental condition during which the cementitious matrix continues to crystallize and develop strength.

3.2.2 *curing time, n*—the time subsequent to initial hydration of the GCCM and immediately prior to the testing of the material during which the cementitious material is allowed to harden and form its final structure. The specific process for curing is specified in 9.3.

3.2.3 *dry, adj*—a description of the state of a GCCM before it has been exposed to a hydration source. Typically describes the "as received" dry product after conditioning in prescribed manner.

3.2.4 *geosynthetic cementitious composite mat (GCCM), n*—a factory assembled barrier consisting of a cementitious material contained within layer or layers of geosynthetic materials. The GCCM forms a hardened barrier when properly hydrated and cured.

3.2.5 *hydration, n*—exposure of the GCCM, in this case, to water in prescribed conditions for a prescribed time.

3.2.6 *index property test, n*—in geosynthetics, a standard test that may be used to compare the relative material properties of erosion control products.

[1] This practice 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.

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