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Standard Practice for Quality Control of Geosynthetic Clay Liners[1]

This standard is issued under the fixed designation D 5889; 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 manufacturing quality control of geosynthetic clay liners (GCLs), describing types of tests, the proper test methods, and the minimum testing frequencies.

1.2 This practice is intended to aid manufacturers, suppliers, purchasers and users of GCLs in establishing a minimum level of effort for manufacturing quality control.

1.3 This practice does not address manufacturing quality assurance, product acceptance testing, or conformance testing. These are independent activities taken by organizations other than the GCL manufacturer.

1.4 The values stated in SI units are to be regarded as the standard. The inch-pound units given in parentheses are for information 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 and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ~~*ASTM Standards:*~~

~~D638Test Method for Tensile Properties of Plastics~~
~~D4354Practice for Sampling of Geosynthetics for Testing~~
~~D4439Terminology for Geosynthetics[3]~~
~~D4632Test Method for Grab Breaking Load and Elongation of Geotextiles[3]~~
~~D4759Practice for Determining the Specification Conformance of Geosynthetics[3]~~
~~D5199Test Method for Measuring Nominal Thickness of Geotextiles and Geomembranes[3]~~
~~D5261Test Method for Measuring Mass per Unit Area of Geotextiles[3]~~
~~D5887Test Method for Measurement of Index Flux Through Saturated Geosynthetic Clay Liner Specimens Using Flexible Wall Permeameter[3]~~
~~D5890Test Method for Swell Index of Clay Mineral Componenet of Geosynthetic Clay Liners[3]~~
~~D5891Test Method for Fluid Loss of Clay Component of Geosynthetic Clay Liners[3]~~ ASTM Standards:[2]

D 638 Test Method for Tensile Properties of Plastics
D 4439 Terminology for Geosynthetics
D 4632 Test Method for Grab Breaking Load and Elongation of Geotextiles
D 4643 Test Method for Determination of Water (Moisture) Content of Soil by Microwave Oven Heating
D 5199 Test Method for Measuring the Nominal Thickness of Geosynthetics
D 5261 Test Method for Measuring Mass per Unit Area of Geotextiles
D 5887 Test Method for Measurement of Index Flux Through Saturated Geosynthetic Clay Liner Specimens Using a Flexible Wall Permeameter
D 5890 Test Method for Swell Index of Clay Mineral Component of Geosynthetic Clay Liners
D 5891 Test Method for Fluid Loss of Clay Component of Geosynthetic Clay Liners
D 5993 Test Method for Measuring Mass Per Unit of Geosynthetic Clay Liners

2.2 *Government Document:*

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[1] ~~This practice is under the jurisdiction of ASTM Committee D-35 on Geosynthetics and Rock and is the direct responsibility of Subcommittee D35.04 on Geosynthetic Clay Liners.~~

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[1] This practice is under the jurisdiction of ASTM Committee D35 on Geosynthetics and is the direct responsibility of Subcommittee D35.04 on Geosynthetic Clay Liners. Current edition approved Dec. 1, 2008. Published February 2009. Originally approved in 1995. Last previous edition approved in 2003 as D 5889 – 97 (2003).

[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* ~~, Vol 08.01.~~volume information, refer to the standard's Document Summary page on the ASTM website.