



Standard Guide for Coring and Logging Soil-Cement or Lime-Stabilized Soil¹

This standard is issued under the fixed designation D6236; 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 guide covers obtaining cores of soil-cement or lime-stabilized soil for use in determining compressive strength, lift thickness and bond strength, and other physical properties. This guide is primarily for use in coring through shallow (0.3 to 3 m (1 to 10 ft) thick) layers of cement or lime-stabilized soils containing particles < 50 mm (2 in.) in diameter to the underlying foundation.

NOTE 1—This guide could be used for some Class C self-cementing fly ash materials, which may also stabilize soil.

1.2 This guide does not cover material of less than 2100 kPa (300 psi) compressive strength such as cement-soil-bentonite mixtures or some controlled low strength materials (CLSM).

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

1.4 The values stated in SI units are to be regarded as the standard. Other values are examples or 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.* Specific precautionary statements are given in Section 8.

1.6 *This guide offers an organized collection of information or a series of options and does not recommend a specific course of action. This guide cannot replace education or experience and should be used in conjunction with professional judgment. Not all aspects of this guide may be applicable in all circumstances. This guide 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 guide 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 This test method is under the jurisdiction of ASTM Committee D18 on Soil and Rock and is the direct responsibility of Subcommittee D18.15 on Stabilization With Admixtures.

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1.7 The text of this standard references notes and footnotes which provide explanatory material. These notes and footnotes (excluding those in tables and figures) shall not be considered as requirements of the standard.

2. Referenced Documents

2.1 ASTM Standards:²

C51 Terminology Relating to Lime and Limestone (as used by the Industry)

C219 Terminology Relating to Hydraulic Cement

D559 Test Methods for Wetting and Drying Compacted Soil-Cement Mixtures (Withdrawn 2012)³

D560 Test Methods for Freezing and Thawing Compacted Soil-Cement Mixtures (Withdrawn 2012)³

D653 Terminology Relating to Soil, Rock, and Contained Fluids

D1633 Test Methods for Compressive Strength of Molded Soil-Cement Cylinders

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

D4220 Practices for Preserving and Transporting Soil Samples

D4452 Practice for X-Ray Radiography of Soil Samples

D5079 Practices for Preserving and Transporting Rock Core Samples

D5102 Test Methods for Unconfined Compressive Strength of Compacted Soil-Lime Mixtures

D5607 Test Method for Performing Laboratory Direct Shear Strength Tests of Rock Specimens Under Constant Normal Force

D6026 Practice for Using Significant Digits in Geotechnical Data

3. Terminology

3.1 Definitions:

3.1.1 Refer to Terminology C51 for terms relating to lime.

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.

³ The last approved version of this historical standard is referenced on www.astm.org.

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