



Standard Test Methods for Chemical Analysis of Limestone, Quicklime, and Hydrated Lime¹

This standard is issued under the fixed designation C 25; 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.

This standard has been approved for use by agencies of the Department of Defense.

1. Scope

1.1 These test methods cover the chemical analysis of high-calcium and dolomitic limestone, quicklime, and hydrated lime. These test methods are classified as either standard (preferred) or alternative (optional).

1.2 The standard test methods are those that employ classical gravimetric or volumetric analytical procedures and are typically those required for referee analyses where chemical specification requirements are an essential part of contractual agreement between buyer and seller.

1.3 Alternative or optional test methods are provided for those who wish to use procedures shorter or more convenient than the standard methods for the routine determinations of certain constituents. Optional test methods may sometimes be preferred to the standard test methods, but frequently the use of modern and expensive instrumentation is indicated which may not be accessible to everyone. Therefore, the use of these test methods must be left to the discretion of each laboratory.

1.4 The analytical procedures appear in the following order:

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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. For specific precautionary statements, see Note 11, Note 13, Note 27, Note 51, Note X2.1, and Note X5.1.*

2. Referenced Documents

2.1 ASTM Standards:

- C 50 Practice for Sampling, Inspection, Packing, and Marking of Lime and Limestone Products²
- C 51 Terminology Relating to Lime and Limestone (as Used by the Industry)²
- C 911 Specification for Quicklime, Hydrated Lime, and Limestone for Chemical Uses²
- D 1193 Specification for Reagent Water³
- E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications⁴

¹ These test methods are under the jurisdiction of ASTM Committee C-7 on Lime and are the direct responsibility of Subcommittee C07.05 on Chemical Tests.

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² *Annual Book of ASTM Standards*, Vol 04.01.

³ *Annual Book of ASTM Standards*, Vol 11.01.

⁴ *Annual Book of ASTM Standards*, Vol 14.02.