



Designation: C1164 – 14

# Standard Practice for Evaluation of Limestone or Lime Uniformity From a Single Source<sup>1</sup>

This standard is issued under the fixed designation C1164; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

## 1. Scope\*

1.1 This practice is intended for use in instances where the purchaser desires information on the uniformity of limestone or lime produced at a single source. It is intended that this test method normally be used for the predominant material manufactured at a plant. Guidelines for sampling, testing and presentation of results (Table 1) are given.

1.2 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

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

## 2. Referenced Documents

2.1 *ASTM Standards:*<sup>2</sup>

C25 Test Methods for Chemical Analysis of Limestone, Quicklime, and Hydrated Lime

C50 Practice for Sampling, Sample Preparation, Packaging, and Marking of Lime and Limestone Products

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

C110 Test Methods for Physical Testing of Quicklime, Hydrated Lime, and Limestone

C141 Specification for Hydraulic Hydrated Lime for Structural Purposes

C1271 Test Method for X-ray Spectrometric Analysis of Lime and Limestone

C1301 Test Method for Major and Trace Elements in Lime-

stone and Lime by Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP) and Atomic Absorption (AA)

## 3. Terminology

3.1 *Definitions:*

3.1.1 For definitions of terms relating to this practice refer to Terminology C51.

## 4. Significance and Use

4.1 This practice is designed to present in a standardized format information on the variability of limestone or lime from a single source over a period of time. It can be applied to all materials covered in Test Methods C25, C110, C1271, and C1301, and Specification C141.

## 5. Sampling

5.1 The sampling shall be done in accordance with Methods C50.

5.2 All sampling shall be performed by personnel qualified by specific training for this purpose.

5.3 Data points shall be an average of three or more separate determinations relative to a specified unit of time. For example: (1)  $n$  determinations for daily average, (2) daily determinations for weekly average.

5.4 The samples shall be identified by the date or dates that the represented material was obtained.

## 6. Procedure

6.1 The minimum amount of testing (see 5.3) and the type of test(s) to be performed should be agreed upon by the purchaser and producer.

NOTE 1—A single daily analysis does not necessarily characterize a product. A minimum of three analyses is more reasonable.

6.2 It is desirable that all tests used in a single evaluation be performed in the same laboratory, preferably by the same person, in order for the results to be comparable.

NOTE 2—In order to obtain comparable results when exchanging samples between laboratories, methods used in preparation, handling and storage of those samples must be uniform.

<sup>1</sup> This practice is under the jurisdiction of ASTM Committee C07 on Lime and Limestone and is the direct responsibility of Subcommittee C07.02 on Specifications and Guidelines.

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<sup>2</sup> 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.

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