Designation: ~~C5 – 10~~ C5 – 18

Standard Specification for Quicklime for Structural Purposes[1]

This standard is issued under the fixed designation C5; 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 U.S. Department of Defense.

1. Scope

1.1 This specification covers all classes of quicklime such as crushed lime, granular lime, ground lime, lump lime, pebble lime, and pulverized lime, used for structural purposes.

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.*

1.4 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

C25 Test Methods for Chemical Analysis of Limestone, Quicklime, and Hydrated Lime
~~C50~~C50/C50M 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
C1489 Specification for Lime Putty for Structural Purposes
E11 Specification for Woven Wire Test Sieve Cloth and Test Sieves

3. Terminology

3.1 *Definitions*—Unless otherwise specified, for definitions of terms used in this standard, refer to Terminology C51.

4. Chemical Composition

4.1 The quicklime shall conform to the following requirements as to chemical composition, calculated on a nonvolatile basis:

	~~Calcium Lime~~	~~Magnesium Lime~~
~~Calcium oxide, min, %~~	~~75~~	
~~Magnesium oxide, min, %~~		~~20~~
~~Calcium and magnesium oxide, min, %~~	~~95~~	~~95~~
~~Silica, alumina, and oxide of iron, max, %~~	~~5~~	~~5~~
~~Carbon dioxide, max, %:~~		
~~— If sample is taken at place of manufacture~~	~~3~~	~~3~~
~~— If sample is taken at any other place~~	~~10~~	~~10~~

[1] This specification 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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[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.