Designation: C 602 – 06a

Standard Specification for Agricultural Liming Materials[1]

This standard is issued under the fixed designation C 602; 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 This specification covers agricultural liming materials, such as quicklime (burnt lime), hydrated lime, limestone, (calcitic and dolomitic), marl, shells, and byproducts including slag, and other materials.

1.2 *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:* [2]

C 25 Test Methods for Chemical Analysis of Limestone, Quicklime, and Hydrated Lime

C 50 Practice for Sampling, Sample Preparation, Packaging, and Marking of Lime and Limestone Products

C 125 Terminology Relating to Concrete and Concrete Aggregates

D 3176 Practice for Ultimate Analysis of Coal and Coke

E 11 Specification for Wire Cloth and Sieves for Testing Purposes

3. Terminology

3.1 *Definitions:*

3.1.1 *agricultural liming material*—a product whose calcium and magnesium compounds are capable of neutralizing soil acidity.

3.1.2 *air-cooled blast-furnace slag and granulated blast-furnace slag*—air-cooled blast-furnace slag and granulated blast furnace slag as defined in Terminology C 125.

3.1.3 *calcium carbonate equivalent (C.C.E.)*—the acid-neutralizing capacity (of an agricultural liming material) of the material expressed as weight percent of calcium carbonate.

4. Chemical Classifications

4.1 Agricultural liming materials shall be classified in terms of calcium carbonate equivalent (C.C.E.), as shown in Table 1.

TABLE 1 Agricultural Liming Materials

Material	Calcium Carbonate Equivalent (C.C.E.), percent
Quicklime	not less than 140
Hydrated lime	not less than 110
Limestone	not less than 80
Slag	not less than 80
Shells	not less than 80

NOTE 1—Marl and some byproduct liming materials are used for neutralizing soil acidity, but due to their varying composition, their chemical limits are not included. In some economic circumstances limestone, slag, and shells of less than 80 % C.C.E. may be used.

5. Sieve Analysis Classifications for Agricultural Limestone

5.1 Agricultural limestone shall be classified according to the minimum percentages passing the No. 8 (2.36-mm) and No. 60 (250-µm) sieves conforming to Specification E 11, as shown in Table 2.

TABLE 2 Classification for Agricultural Limestone

Class Designation	Passing No. 8 (2.36-mm) Sieve, min, percent	Passing No. 60 (250-µm) Sieve, min, percent
S	100	100
T	99	75
O	95	55
N	90	40
E	80	25

NOTE 2—These classifications apply where the agricultural limestone is obtained by the normal crushing procedure and the product contains the fines of fracture. In some economic circumstances, coarser products are used. The No. 60 (250-µm) sieve was selected because research has shown that this sieve gives a more accurate representation of the particle size distribution of most agricultural limestones presently produced than a finer

[1] This specification is under the jurisdiction of ASTM Committee C07 on Lime and is the direct responsibility of Subcommittee C07.03 on Industrial Uses.

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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.

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