



Standard Specification for Limestone for Animal Feed Use¹

This standard is issued under the fixed designation C 706; 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.

^{ε1} NOTE—A units statement was added editorially as paragraph 1.2 and subsequent paragraphs were renumbered in December 2008.

1. Scope

1.1 This specification covers limestone supplied for use as a mineral supplement in animal feeds.

NOTE 1—The calcium needed for animal nutrition is customarily supplied by limestone. Such limestone must be sufficiently fine to blend with mixed feeds and yet be free from excessive dusting.

1.2 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this 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:*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 51 Terminology Relating to Lime and Limestone (as used by the Industry)

C 110 Test Methods for Physical Testing of Quicklime, Hydrated Lime, and Limestone

E 11 Specification for Wire Cloth and Sieves for Testing Purposes

3. Terminology

3.1 Definitions of terms applying to this specification appear in Terminology C 51.

¹ This specification is under the jurisdiction of ASTM Committee C07 on Lime and is the direct responsibility of Subcommittee C07.02 on Specifications and Guidelines.

Current edition approved Dec. 1, 2008. Published February 2009. Originally approved in 1972. Last previous edition approved in 2002 as C 706 – 02.

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.

4. General Requirements

4.1 The product must be suitable for animal feeding.

5. Chemical Requirements

5.1 Limestone, as identified on feed labels, shall conform to the chemical requirements given in Table 1.

6. Physical Requirements

6.1 Sieve analysis and other physical requirements shall be specified by the purchaser.

7. Test Methods

7.1 *Chemical Analysis*—Unless otherwise agreed upon between the purchaser and the manufacturer, the chemical analysis of the limestone shall be conducted in accordance with Test Methods C 25.

7.2 *Particle Size*—Unless otherwise agreed upon between the purchaser and the manufacturer, the sieve analysis of the material shall be determined in accordance with Test Methods C 110.

7.2.1 *Procedure*—If the entire sample is not to be dried, obtain lesser portions by riffing or quartering. Dry at between 115 to 120 °C to a constant mass and cool to room temperature. Obtain a 90 to 120-g dry sample by riffing or quartering. If the material tends to cake, break up the agglomerates with a soft rubber pestle. Quantitatively transfer the weighed sample to an 8-in. diameter standard sieve or set of sieves (for example, Nos. 10, 20, 40, 60, 80, and 100 or other appropriate combination conforming to Specification E 11). Conduct the sieve analysis in accordance with Test Methods C 110.

8. Sampling, Inspection, etc.

8.1 The sampling, inspection, rejection, retesting, packaging, and marking shall be conducted in accordance with Methods C 50.

9. Keywords

9.1 animal; feed; limestone; mineral; supplement

TABLE 1 Chemical Requirements

Limestone Classes (See C 51)	Calcium, min, percent (as CaCO ₃)	Magnesium, max, percent (as MgCO ₃)	Magnesium, min, percent (as MgCO ₃)	Moisture, max, percent
High Calcium	95	5	...	0.5
Magnesian	60	35 ^A	5	0.5
Dolomitic	49	46 ^A	35	0.5
Ground Limestone	82	^B	^B	0.5

^A The high magnesium content of these materials usually limits their use to special-purpose feeds.

^B As specified by the purchaser.

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