



Standard Specification for Limestone for Dusting of Coal Mines¹

This standard is issued under the fixed designation C737; 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.

1. Scope*

1.1 This specification covers limestone suitable for use as dust in coal mines to reduce risk of coal dust explosions.

NOTE 1—Limestone can serve as a source of incombustible material in coal mine operations. Limestone is dusted onto coal exposures in sufficient amount so that not less than 65 % of all loose dust shall be limestone incombustible material. In return air courses the concentration of incombustible materials should be not less than 80 % of the total dust (MSHA 30 CFR 75.403). With such a concentration of limestone incombustible material, dust explosions cannot initiate or be propagated from nearby gas explosions. The limestone must be substantially dry in order to dust satisfactorily.

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.*

1.3 The values stated in inch-pound units are to be regarded as standard. No other units of measurement are included in this standard.

2. Referenced Documents

2.1 ASTM Standards:²

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

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

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, 2013. Published January 2013. Originally approved in 1973. Last previous edition approved in 2008 as C737 – 08. DOI: 10.1520/C0737-13.

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.

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

C1301 Test Method for Major and Trace Elements in Limestone and Lime by Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP) and Atomic Absorption (AA)

3. Chemical Composition

3.1 Limestone shall conform to the following as to chemical composition:

Moisture (at point of manufacture), max, %	0.5
Silica, free and combined, max, %	4.0

4. Physical Properties

4.1 Limestone for this application shall have the following particle size:

Passing 850 μm (No. 20) sieve, min, %	100
Passing 75 μm (No. 200) sieve, min, %	70

5. Test Methods

5.1 *Chemical Analysis*—The chemical analysis of the limestone shall be conducted in accordance with Test Methods **C25**, **C1271**, or **C1301**.

5.2 *Particle Size*—The sieve analysis of limestone shall be conducted in accordance with Test Methods **C110**.

6. General Requirements

6.1 Either high calcium or dolomitic limestone may be furnished for this application.

7. Sampling, Inspection, etc.

7.1 The sampling, inspection, rejection, retesting, packaging, and marking shall be conducted in accordance with Methods **C50**.

8. Keywords

8.1 coal mines; dolomitic limestone; high calcium limestone; limestone; limestone dust; mine explosions; moisture content; silica content



SUMMARY OF CHANGES

Committee C07 has identified the location of selected changes to this specification since the last issue, C737 – 08, that may impact the use of this specification. (Approved Dec. 1, 2013)

(1) Revised 1.1.

(3) Revised 4.1.

(2) Added Test Methods C1271 and C1301 to Section 2 and 5.1.

ASTM International takes no position respecting the validity of any patent rights asserted in connection with any item mentioned in this standard. Users of this standard are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, are entirely their own responsibility.

This standard is subject to revision at any time by the responsible technical committee and must be reviewed every five years and if not revised, either reapproved or withdrawn. Your comments are invited either for revision of this standard or for additional standards and should be addressed to ASTM International Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee, which you may attend. If you feel that your comments have not received a fair hearing you should make your views known to the ASTM Committee on Standards, at the address shown below.

This standard is copyrighted by ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959, United States. Individual reprints (single or multiple copies) of this standard may be obtained by contacting ASTM at the above address or at 610-832-9585 (phone), 610-832-9555 (fax), or service@astm.org (e-mail); or through the ASTM website (www.astm.org). Permission rights to photocopy the standard may also be secured from the ASTM website (www.astm.org/COPYRIGHT/).