



Designation: C737 – 22

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 pulverized limestone suitable for use as dust in coal mines to reduce risk of coal dust explosions.

NOTE 1—Pulverized limestone can serve as a source of incombustible material in coal mine operations. Limestone is dusted onto coal exposures in sufficient amount so that the incombustible content of the combined coal dust, rock dust, other dust, and moisture shall not be less than 80 % of all loose 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 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, health, and environmental 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 Practice for Sampling, Sample Preparation, Packaging, and Marking of Lime and Limestone Products

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.

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

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

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)

E11 Specification for Woven Wire Test Sieve Cloth and Test Sieves

2.2 *Government Regulations:*³

30 CFR Part 75 Mandatory Safety Standards - Underground Coal Mines

3. Terminology

3.1 Definitions:

3.1.1 For definitions of terms used in this specification, refer to Terminology C51.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *rock dust*—pulverized limestone or other inert materials which meet chemical and physical requirements; when applied to coal dust, will reduce dispersibility and minimize the explosion hazard.

30 CFR § 75.2.

4. Chemical Composition

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

Moisture (at point of manufacture), max, %	0.5
Combustible matter, max, %	5.0
Silica, free and combined, max, %	4.0

NOTE 2—Rock dust sources which do not contain more than 5 % of free or combined silica may be used with authorization from the Secretary of Labor or their designee.

5. Physical Properties

5.1 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

³ Available from U.S. Government Publishing Office (GPO), 732 N. Capitol St., NW, Washington, DC 20401, <http://www.gpo.gov>.

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