



## Standard Specification for Limestone for Dusting of Coal Mines<sup>1</sup>

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### 1. Scope

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

NOTE 1—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. With such a concentration of limestone, explosions cannot initiate or be propagated from nearby gas explosions. The limestone must be substantially dry in order to dust satisfactorily.

### 2. Referenced Documents

#### 2.1 ASTM Standards:

- C 25 Test Methods for Chemical Analysis of Limestone, Quicklime, and Hydrated Lime<sup>2</sup>
- C 50 Methods for Sampling, Inspection, Packing, and Marking of Lime and Limestone Products<sup>2</sup>
- C 110 Test Methods for Physical Testing of Quicklime, Hydrated Lime, and Limestone<sup>2</sup>

### 3. Chemical Composition

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

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee C-7 on Lime and is the direct responsibility of Subcommittee C07.03 on Industrial Uses.

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<sup>2</sup> Annual Book of ASTM Standards, Vol 04.01.

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 fineness:

Passing a No. 20 (850- $\mu$ m) sieve, min, %	100
Passing a No. 200 (75- $\mu$ m) sieve, min, %	70

### 5. Test Methods

5.1 *Chemical Analysis*—The chemical analysis of the limestone shall be made in accordance with Test Methods C 25.

5.2 *Fineness*—The sieve analysis of limestone shall be determined in accordance with Test Methods C 110.

### 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, packing, and marking shall be conducted in accordance with Methods C 50.

### 8. Keywords

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

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