



Designation: C 1335 – 96 (Reapproved 2002)

## Standard Test Method for Measuring Non-Fibrous Content of Man-Made Rock and Slag Mineral Fiber Insulation<sup>1</sup>

This standard is issued under the fixed designation C 1335; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope

1.1 This test method covers a procedure for determining the non-fibrous content (shot) of man-made rock and slag mineral fiber insulation. The procedure covers a dry sieve analysis method to distinguish between fiberized and non-fiberized (shot) portions of a specimen of man-made rock and slag mineral fiber insulation specimen.

1.2 This test method does not apply to rock or slag materials containing any components other than rock and slag mineral fiber and organic thermal setting binders. Products containing other types of fibers, inorganic binders, or refractory clays are excluded.

1.3 The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are for information only.

1.4 *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:

- C 168 Terminology Relating to Thermal Insulation<sup>2</sup>
- C 390 Criteria for Sampling and Acceptance of Preformed Thermal Insulation Lots<sup>2</sup>
- E 11 Specification for Wire-Cloth Sieves for Testing Purposes<sup>3</sup>
- E 178 Practice for Dealing with Outlying Observations<sup>3</sup>

### 3. Terminology

3.1 *Definitions*—Terminology C 168 shall be considered as applying to the terms used in this test method.

<sup>1</sup> This test method is under the jurisdiction of ASTM Committee C16 on Thermal Insulation and is the direct responsibility of Subcommittee C16.32 on Mechanical Properties.

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<sup>2</sup> Annual Book of ASTM Standards, Vol 04.06.

<sup>3</sup> Annual Book of ASTM Standards, Vol 14.02.

### 3.2 Definition of Term Specific to This Standard:

3.2.1 *shot*—material that cannot be brushed or mechanically shaken through a No. 100 (150  $\mu$ m) sieve.

### 4. Significance and Use

4.1 Inorganic fibrous thermal insulation can contain varying amounts of non-fibrous material. Non-fibrous material does not contribute to the insulating value of the insulation and therefore a procedure for determining that amount is desirable. Several specifications refer to shot content and percent (%) retained on various screen sizes determined by this test method.

### 5. Apparatus

5.1 *Furnace*, capable of maintaining  $1100 \pm 10^\circ\text{F}$  ( $593 \pm 5.6^\circ\text{C}$ ) for rock and slag wool.

5.2 *U.S.A. Standard Sieve Shaker Machine*.

5.3 *Balance Scale*, capable of weighing to an accuracy of 0.00035 oz (0.01 g).

5.4 *Sieves*—Three 8 in. (203 mm) diameter U.S.A. Standard Sieves. Nos. 20 (850  $\mu$ m), 50 (300  $\mu$ m), and 100 (150  $\mu$ m) nested in order with bottom receiver pan. All sieve design and construction shall be in accordance with Specification E 11.

5.5 *Brush*—Approximately 1 in. (25 mm) diameter plastic bristle brush, and approximately 1 in. (25 mm) wide soft paint brush.

5.6 *Crucible Weighing Dish*, tared.

5.7 *Stoppers*, rubber, No. 12 or 13.

5.8 *Cork Borer*, approximately 0.8 in. (20 mm) diameter.

### 6. Sampling and Preparation of Test Specimen

6.1 For the purposes of standard tests, sampling shall be in accordance with Criteria C 390 and Practice E 178 with a minimum of three specimens per lot to be tested.

6.1.1 *Specimen*—This test method requires approximately a 0.35 oz (10 g) specimen.

#### 6.2 Specimen Preparation:

6.2.1 Obtain a representative specimen utilizing a 0.8 in. (20 mm) cork borer for blanket or board and random specimens for loose fill. Fire the specimen in a tared dish at  $1100 \pm 10^\circ\text{F}$  ( $593 \pm 5.6^\circ\text{C}$ ) for 15 min. Remove tared dish with specimen and allow to cool for approximately 20 min.