Designation: ~~C163 – 05 (Reapproved 2010)~~ C163 – 05 (Reapproved 2016)

Standard Practice for Mixing Thermal Insulating Cement Samples[1]

This standard is issued under the fixed designation C163; 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 practice covers mixing thermal insulating cement samples with water in the preparation of specimens for use in all tests on the cement.

1.2 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered 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]

C168 Terminology Relating to Thermal Insulation

3. Terminology

3.1 *Definitions:* Terminology C168 shall be considered as applying to the terms used in this practice.

4. Significance and Use

4.1 Insulating cement must be mixed with water and molded to prepare for testing.

5. Apparatus

5.1 *Mixing Surface or Pan,* nonabsorbent and corrosion-resistant surface or shallow pan approximately 3 ft (0.9 m) square.

5.2 *Trowels,* 16-in. (about 400-mm) rectangular plasterer's trowel, and a 9-in. (about 230-mm) pointed trowel.

5.3 *Scales,* accurate to within 0.5 oz (14.1 g) with a minimum capacity of 15 lb (about 6.8 kg).

5.4 *Water Container,* suitable for holding approximately 2 gal (about 8 L) of water.

5.5 *Mold,* constructed of either wood or metal.

6. Mixing Water

6.1 The mixing water shall be equal in quality to that used for domestic purposes. Its temperature shall be between 70 and 75°F (21 and 24°C). The quantity used shall be that which gives the consistency as recommended by the manufacturer.

7. Procedure

7.1 Test at least one specimen from each lot of cement unless otherwise agreed upon between user and supplier or as shown otherwise in a material specification.

7.2 Weigh the specimen (at least 3 lb (1.4 kg)) of dry cement and place it on a smooth, nonabsorbent, and corrosion-resistant surface.

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[1] This practice is under the jurisdiction of ASTM Committee C16 on Thermal Insulation and is the direct responsibility of Subcommittee C16.31 on Chemical and Physical Properties.

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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.