



Designation: C 195 – 00

## Standard Specification for Mineral Fiber Thermal Insulating Cement<sup>1</sup>

This standard is issued under the fixed designation C 195; 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 approval. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

*This standard has been approved for use by agencies of the Department of Defense.*

### 1. Scope

1.1 This specification covers mineral fiber thermal insulating materials in the form of dry cement, which, when mixed with a suitable proportion of water, applied as a plastic mass, and dried in place, affords resistance to heat transmission on surfaces operating at temperatures between 250 and 1900°F (about 121 and 1038°C).

1.2 The values stated in inch-pound units are to be regarded as the standard. The SI equivalents of inch-pound units are given in parentheses and may be approximate.

1.3 The following safety hazards caveat pertains only to the test methods section of this specification: *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 163 Practice for Mixing Thermal Insulating Cement Samples<sup>2</sup>
- C 166 Test Method for Covering Capacity and Volume Change Upon Drying of Thermal Insulating Cement<sup>2</sup>
- C 168 Terminology Relating to Thermal Insulating Materials<sup>2</sup>
- C 177 Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus<sup>2</sup>
- C 353 Test Method for Adhesion of Dried Thermal Insulating or Finishing Cement<sup>2</sup>
- C 354 Test Method for Compressive Strength of Thermal Insulating or Finishing Cement<sup>2</sup>

C 356 Test Method for Linear Shrinkage of Preformed High-Temperature Thermal Insulation Subjected to Soaking Heat<sup>2</sup>

C 390 Criteria for Sampling and Acceptance of Preformed Thermal Insulation Lots<sup>2</sup>

C 405 Practice for Estimating Consistency of Wet-Mixed Thermal Insulating Cement<sup>2</sup>

C 411 Test Method for Hot-Surface Performance of High-Temperature Thermal Insulation<sup>2</sup>

C 518 Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus<sup>2</sup>

C 1045 Practice for Calculating Thermal Transmission Properties From Steady-State Heat Flux Measurements<sup>2</sup>

C 1058 Practice for Selecting Temperatures for Evaluating and Reporting Thermal Properties of Thermal Insulation<sup>2</sup>

C 1114 Test Method for Steady-State Thermal Transmission Properties by Means of the Thin-Heater Apparatus<sup>2</sup>

E 136 Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C<sup>3</sup>

### 3. Terminology

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

### 4. Materials and Manufacture

4.1 Mineral fiber thermal insulating cement shall be composed of mineral fiber, with a suitable proportion of heat-resistant binder.

4.2 The mineral fiber shall consist of rock, slag, or glass processed from a molten state into fibrous form.

4.3 Asbestos shall not be used as an ingredient or component part of the product.

### 5. Other Requirements

5.1 The cement shall conform to the requirements given in Table 1. Conformance shall be based on results of tests on

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee C16 on Thermal Insulation and is the direct responsibility of Subcommittee C16.20 on Homogeneous Inorganic Thermal Insulations.

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

<sup>3</sup> *Annual Book of ASTM Standards*, Vol 04.07.