



Designation: C 1014 – 99a^{€1}

Standard Specification for Spray-Applied Mineral Fiber Thermal and Sound Absorbing Insulation¹

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€¹ NOTE—The title and section 9.10 were editorially revised in August 2000.

1. Scope

1.1 This specification covers the composition and the physical properties of spray-applied mineral fiber thermal and sound absorbing insulation.

1.2 These mineral fibers shall be pneumatically conveyed to a spray nozzle where they are mixed with water. These mineral fibers shall have a binder either pre-mixed with the fibers or added at the spray nozzle with the water.

1.3 The spray-applied mineral fiber insulation is intended for use in building constructions at ambient conditions.

1.4 This is a material specification only and is not intended to cover methods of application that are supplied by the manufacturer.

1.5 *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 Insulating Materials²
- C 177 Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded Hot Plate Apparatus²
- C 390 Criteria for Sampling and Acceptance of Preformed Thermal Insulation Lots²
- C 423 Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method²
- C 518 Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus²
- C 665 Specification for Mineral Fiber Blanket Thermal

Insulation for Light Frame Construction and Manufactured Housing²

C 1104/C 1104M Test Method for Determining the Water Vapor Sorption of Unfaced Mineral Fiber Insulation²

C 1114 Test Method for Steady-State Thermal Transmission Properties by Means of the Thin-Heater Apparatus²

C 1149 Specification for Self-Supported Spray Applied Cellulosic Thermal/Acoustical Insulation²

C 1338 Test Method for Determining the Fungi Resistance of Insulation Materials and Facings²

C 1363 Test Method for Thermal Performance of Building Assemblies by Means of a Hot Box Apparatus²

E 84 Test Method for Surface Burning Characteristics of Building Materials³

E 605 Test Methods for Thickness and Density of Sprayed Fire-Resistive Material Applied to Structural Members⁴

E 736 Test Method for Cohesion/Adhesion of Sprayed Fire-Resistive Materials Applied to Structural Members³

E 759 Test Method for the Effect of Deflection of Sprayed Fire-Resistive Material Applied to Structural Members³

E 795 Practices for Mounting Test Specimens During Sound Absorption Tests²

3. Terminology

3.1 *Definitions*—For definitions of terms used in this specification, see Terminology C 168.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *constant mass*—the mass of a sample at equilibrium conditions of 75 ± 5°F and 50 ± 5 % relative humidity that shall not deviate more than 0.5 % over a 24-h period.

3.2.2 *cured*—the state or condition of the finished product after the liquid vehicle has been evaporated to a constant mass.

4. Materials and Manufacture

4.1 *Composition*—The basic material shall be fibers made from mineral substances such as rock, slag or glass processed from the molten state into a fibrous form. Organic or inorganic substances may be added to the fibers or to the binder, or to

¹ This specification is under the jurisdiction of ASTM Committee C-16 on Thermal Insulation and is the direct responsibility of Subcommittee C16.23 on Blanket and Loose Fill Insulation.

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² Annual Book of ASTM Standards, Vol 04.06.

³ Annual Book of ASTM Standards, Vol 04.07.

⁴ Annual Book of ASTM Standards, Vol 04.11.