



Standard Specification for Self-Supported Spray Applied Cellulosic Thermal Insulation¹

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1. Scope

1.1 The specification covers the physical properties of self-supported spray applied cellulosic fibers intended for use as thermal insulation or an acoustical absorbent material, or both.

1.2 This specification covers chemically treated cellulosic materials intended for pneumatic applications where temperatures do not exceed 82.2°C and where temperatures will routinely remain below 65.6°C.

1.2.1 *Type I*—Material applied with liquid adhesive and suitable for either exposed or enclosed applications.

1.2.2 *Type II*—Materials containing a dry adhesive that is activated by water during installation and intended only for enclosed or covered applications.

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

1.4 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

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:²

C168 Terminology Relating to Thermal Insulation

C177 Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus

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

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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.

C518 Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus
C739 Specification for Cellulosic Fiber Loose-Fill Thermal Insulation
C1363 Test Method for Thermal Performance of Building Materials and Envelope Assemblies by Means of a Hot Box Apparatus
E84 Test Method for Surface Burning Characteristics of Building Materials
E605 Test Methods for Thickness and Density of Sprayed Fire-Resistive Material (SFRM) Applied to Structural Members
E736 Test Method for Cohesion/Adhesion of Sprayed Fire-Resistive Materials Applied to Structural Members
E759 Test Method for Effect of Deflection on Sprayed Fire-Resistive Material Applied to Structural Members
E859 Test Method for Air Erosion of Sprayed Fire-Resistive Materials (SFRMs) Applied to Structural Members

3. Terminology

3.1 *Definitions*—Definitions in Terminology C168 shall apply in this specification.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *constant mass*—no change in successive weighings in excess of 0.5 % of specimen mass taken at 4-h intervals unless otherwise specified.

3.2.2 *cured*—the state of the finished product after it has achieved constant mass.

3.2.3 *curing*—the process in which the liquid vehicle is removed. Normally achieved in ambient building conditions with forced air convection to hasten the evaporation process.

3.2.4 *prepared sample*—samples prepared in accordance with Section 5 and cured to constant mass prior to conducting the specific tests. The prepared samples, after reaching constant mass, as defined in 3.2.1, shall have a density within ± 10 % of the manufacturer's recommended design density.

3.2.5 *self supporting*—a product that can be tested by the criteria imposed by this specification and that will require no support other than itself or the substrate to which it is attached.

3.2.6 *specimen*—definition of specimen as used in this specification shall be the same as that for *prepared sample* in 3.2.4.