



Designation: C 1071 – 98

AMERICAN SOCIETY FOR TESTING AND MATERIALS
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Standard Specification for Fibrous Glass Duct Lining Insulation (Thermal and Sound Absorbing Material)¹

This standard is issued under the fixed designation C 1071; 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 specification covers fibrous glass insulation used as a thermal and sound absorbing liner for interior surfaces of ducts, plenums, and other air handling equipment that handle air up to 250°F (121°C).

1.2 The values stated in inch-pound units are the standard. The SI values in parentheses are for information only.

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:

C 167 Test Methods for Thickness and Density of Blanket or Batt Thermal Insulations²

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 411 Test Method for Hot-Surface Performance of High-Temperature Thermal Insulation²

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 1304 Test Method for Assessing the Odor Emission of Thermal Insulation Materials²

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

E 84 Test Method for Surface Burning Characteristics of Building Materials³

E 795 Practices for Mounting Test Specimens During Sound Absorption Tests²

2.2 Other Standards:

NAIMA Fibrous Glass Duct Liner Standard⁴

SMACNA HVAC Duct Construction Standards⁵

3. Terminology

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

4. Classification

4.1 The insulation covered by this specification shall be of the following types:

4.1.1 *Type I*—Blanket in roll form up to 200 ft (61 m) in length, 36 to 72 in. (914 to 1829 mm) in width, and thicknesses of ½ to 3 in. (13 to 76 mm), in ½-in. (13-mm) increments.

4.1.2 *Type II*—Board in sheet form, up to 120 in. (3048 mm) in length, up to 48 in. (1219 mm) in width, and thicknesses of ½ to 3 in. (13 to 76 mm) in ½-in. (13-mm) increments.

5. Ordering Information

5.1 Purchasers should select the preferred options permitted herein and include the following information in procurement documents:

5.1.1 Title, designation, and year of this specification.

5.1.2 Type of insulation (see 4.1).

5.1.3 Length, width, and thickness required (see 4.1).

5.1.4 Packaging required (see 16.1).

5.1.5 Marking required (see 16.2 and 16.3).

5.1.6 Material weight should be obtained from supplier.

6. Materials and Manufacture

6.1 *Basic Material*—The basic material shall be made from

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.

Current edition approved Jan. 10, 1998. Published June 1998. Originally published as C 1071 – 86. Last previous edition C 1071 – 91.

² *Annual Book of ASTM Standards*, Vol 04.06.

³ *Annual Book of ASTM Standards*, Vol 04.07.

⁴ Available from North American Insulation Manufacturers Association, 44 Canal Center Plaza, Suite 310, Alexandria, VA 22314.

⁵ Available from Sheet Metal and Air Conditioning Contractors National Association, Inc., 4201 Lafayette Center Drive, Chantilly, VA 22021-1209.