



Designation: C 728 – 97

Standard Specification for Perlite Thermal Insulation Board¹

This standard is issued under the fixed designation C 728; 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 (ϵ) 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 the composition and physical properties for perlite thermal insulation board used principally above structural roof decks and as a base for built-up, modified, and elastomeric membrane roofing in building construction.

1.2 The use of thermal insulation materials covered by this specification may be regulated by building codes or other agencies that address fire performance, or both. The fire performance of the material should be addressed through standard fire test methods established by the appropriate governing documents.

1.3 The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are for information only.

1.4 The following safety hazards caveat pertains only to the test methods, Section 11, in 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 The following standards, of the issue in effect on the date of material purchase, form a part of this specification to the extent specified herein:

2.2 ASTM Standards:

C 165 Test Method for Measuring Compressive Properties of 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 203 Test Methods for Breaking Load and Flexural Properties of Block-Type Thermal Insulation²

C 209 Test Methods for Cellulosic Fiber Insulating Board²

C 390 Criteria for Sampling and Acceptance of Preformed

Thermal Insulation Lots²

C 518 Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus²

C 1289 Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board²

E 84 Test Method for Surface Burning Characteristics of Building Materials³

3. Terminology

3.1 For complete descriptions of terms used in this specification, refer to Terminology C 168.

4. Classification

4.1 Perlite thermal insulation board is classified as follows:

4.1.1 *Type 1, Roof Insulation Board*—The ½ in. (13 mm) thick version of this product is available only to manufacturers of laminated rigid foam products as specified in Specification C 1289.

4.1.2 *Type 2, Roof Cover/Recover Board*—This is used primarily as a field-applied cover board over other roof insulations or in reroofing applications.

5. Ordering Information

5.1 Orders shall at least include the following information:

5.1.1 Title and designation Specification C 728.

5.1.2 Product name, nominal thickness and dimensions.

5.1.3 Quantity of material ordered.

5.1.4 Manufacturer's name, address, and telephone number.

6. Materials and Manufacture

6.1 *Composition*—The basic material of the insulation board shall be perlite expanded by the application of heat to form glassy, cellular aggregates. The insulation board shall be composed of expanded perlite and fibers formed into rigid, flat, rectangular units with a suitable sizing material incorporated in the product. It may have on one or both surfaces a facing or coating to prevent excessive hot bitumen strike-in during roofing installation.

6.2 *Lamination*—The finished board may be either single-ply or multiple-ply. When multiple-ply boards are supplied, a suitable adhesive shall be used to join the plies.

¹ This specification is under the jurisdiction of ASTM Committee C-16 on Thermal Insulation and is the direct responsibility of Subcommittee C16.22 on Organic and Nonhomogeneous Inorganic Thermal Insulations.

Current edition approved May 10, 1997. Published August 1997. Originally published as C 728 – 72. Last previous edition C 728 – 91.

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

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