



Designation: C728 – 17a (Reapproved 2022)

Standard Specification for Perlite Thermal Insulation Board¹

This standard is issued under the fixed designation C728; 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.

This standard has been approved for use by agencies of the U.S. 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 When adopted by an authority having jurisdiction, codes that address fire properties in many applications regulate the use of the thermal insulation materials covered by this specification. Fire properties are controlled by job, project, or other specifications where codes or government regulations do not apply.

1.3 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.4 *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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.5 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

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:²

- C165 Test Method for Measuring Compressive Properties of Thermal Insulations
- 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
- C203 Test Methods for Breaking Load and Flexural Properties of Block-Type Thermal Insulation
- C209 Test Methods for Cellulosic Fiber Insulating Board
- C390 Practice for Sampling and Acceptance of Thermal Insulation Lots
- C518 Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus
- C1289 Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board
- E84 Test Method for Surface Burning Characteristics of Building Materials
- C1763 Test Method for Water Absorption by Immersion of Thermal Insulation Materials

3. Terminology

3.1 For complete descriptions of terms used in this specification, refer to Terminology C168.

4. Classification

4.1 Perlite thermal insulation board is classified as follows:

4.1.1 *Type 1, Roof Insulation Board*—A perlite based roof insulation cover board.

4.1.2 *Type 2, Roof Cover or Recover Board*—This is used primarily as a field-applied cover board over other roof insulations or in reroofing applications. The product is also available to manufacturers of laminated rigid foam products as specified in Specification C1289, Type III.

4.1.3 *Type 3, Roof Cover or Recover Board*—A perlite based cover board that is field applied over other roof insulations or in re-roofing and recover applications. The product is also

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

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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.