



Designation: C 1313 – 00

Standard Specification for Sheet Radiant Barriers for Building Construction Applications¹

This standard is issued under the fixed designation C 1313; 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 the general physical property requirements of radiant barrier materials for use in building construction. The scope is specifically limited to requirements for radiant barrier sheet materials that consist of at least one surface having a far-infrared emittance of 0.1 or less, such as metallic foils or metallic deposits mounted or unmounted on substrates.

1.2 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

1.3 The following safety hazards caveat pertains only to the test methods (Section 10) described 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 ASTM Standards:

- C 168 Terminology Relating to Thermal Insulating Materials²
- C 390 Criteria for Sampling and Acceptance of Preformed Thermal Insulation Lots²
- C 1158 Practice for Use and Installation of Radiant Barrier Systems (RBS) in Building Construction²
- C 1338 Test Method for Determining Fungi Resistance of Insulation Materials and Facings²
- C 1371 Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emisometers²

D 2261 Test Method for Tearing Strength of Fabrics by the Tongue (Single Rip) Procedure³

D 3310 Test Method for Determining Corrosivity of Adhesive Materials⁴

E 84 Test Method for Surface Burning Characteristics of Building Materials⁵

E 96 Test Methods for Water Vapor Transmission of Materials²

2.2 Other Standards:

TAPPI Standard T 512 om-86: Creasing of Flexible Packaging Material Paper Specimens for Testing⁶

3. Terminology

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

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *radiant barrier*—a low emittance (0.1 or less) surface used in the construction of a radiant barrier system.

3.2.2 *radiant barrier system (RBS)*—a building construction consisting of a radiant barrier bounded by an open air space.

4. Ordering Information

4.1 Prior to purchase, for sampling and acceptance procedures, Criteria C390 may be agreed to by purchaser and manufacturer.

4.2 Specify the width and total area to be installed.

4.3 Specify any special markings.

5. Materials and Manufacture

5.1 Sheet radiant barrier materials shall consist of low emittance surface(s) that may be in combination with any substrates and adhesives required to meet the specified physical material properties.

¹ This specification is under the jurisdiction of ASTM Committee C-16 on Thermal Insulation and is under the direct responsibility of Subcommittee C16.21 on Reflective Insulation.

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

³ *Annual Book of ASTM Standards*, Vol 07.01.

⁴ *Annual Book of ASTM Standards*, Vol 15.06.

⁵ *Annual Book of ASTM Standards*, Vol 04.07.

⁶ Available from TAPPI.