



Designation: C1841 – 22

Standard Specification for Interior Radiation Control Coating (IRCC) for Building Applications¹

This standard is issued under the fixed designation C1841; 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 classification, composition, and physical properties of an Interior Radiation Control Coating (IRCC) for use in building applications to reduce radiant heat transfer. The IRCC is sprayed, roller applied, or brushed onto interior building surfaces.

1.2 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.

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

1.4 *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 ASTM Standards:²

- C168 Terminology Relating to Thermal Insulation
- C1186 Specification for Flat Fiber-Cement Sheets
- C1321 Practice for Installation and Use of Interior Radiation Control Coating Systems (IRCCS) in Building Construction
- C1371 Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emisometers
- C1396 Specification for Gypsum Board

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

Current edition approved Nov. 1, 2022. Published December 2022. DOI: 10.1520/C1841-22.

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.

D16 Terminology for Paint, Related Coatings, Materials, and Applications

D1653 Test Methods for Water Vapor Transmission of Organic Coating Films

D3273 Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber

D3274 Test Method for Evaluating Degree of Surface Disfigurement of Paint Films by Fungal or Algal Growth, or Soil and Dirt Accumulation

D3925 Practice for Sampling Liquid Paints and Related Pigmented Coatings

D4708 Practice for Preparation of Uniform Free Films of Organic Coatings

E84 Test Method for Surface Burning Characteristics of Building Materials

E96 Test Methods for Gravimetric Determination of Water Vapor Transmission Rate of Materials

2.2 CSA Standard:³

CSA O121 Douglas Fir Plywood

2.3 NIST Standard:⁴

Voluntary Product Standard PS 1-07 Structural Plywood

3. Terminology

3.1 Refer to the Terminology C168 for definitions of general terms related to thermal insulation used in this specification.

3.2 Refer to the Terminology D16 for definitions of general terms for paint, related coatings, materials, and applications used in this specification.

3.3 Definitions of Terms Specific to This Standard:

3.3.1 *interior radiation control coating (IRCC), n*—a low-emittance liquid applied material, adjacent to an air space within a structure.

3.3.2 *premixed coating, n*—a liquid product that requires all ingredients be combined and blended during manufacture and require only stirring before application.

³ Available from Canadian Standards Association (CSA), 178 Rexdale Blvd., Toronto, ON M9W 1R3, Canada, <http://www.csagroup.org>.

⁴ Available from National Institute of Standards and Technology (NIST), 100 Bureau Dr., Stop 1070, Gaithersburg, MD 20899-1070, <http://www.nist.gov>.