



Designation: C 208 – 72[€]

Standard Specification for INSULATING BOARD (CELLULOSIC FIBER), STRUCTURAL AND DECORATIVE¹

This Standard is issued under the fixed designation C 208; 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.

[€] NOTE 1—Editorial corrections were made in the tables in April 1973.

NOTE 2—The nominal dimensions for roof insulating board in Table 1 were editorially corrected in May 1974.

1. Scope and Classification

1.1 This specification covers the principal types, grades, and sizes of insulating board. Requirements are specified for composition, construction, physical properties, tolerances, sampling procedures, and test methods to determine compliance. Reference is provided to an established source for nomenclature and definitions.

1.2 The principal types, grades, and sizes of insulating board that are covered by this specification are listed in Tables 1 and 2.

2. Applicable Documents

2.1 ASTM Standards:

C 209 Testing Insulating Board (Cellulosic Fiber) Structural and Decorative.²

C 532 Specification for Structural Insulating Formboard (Cellulosic Fiber).²

D 1037 Evaluating the Properties of Wood-Base Fiber and Particle Panel Materials.³

D 1554 Definitions of Terms Relating to Wood-Base Fiber and Particle Panel Materials.³

D 2164 Testing Structural Insulating Roof Deck.³

D 2277 Specification for Fiberboard Nail-Base Sheathing.³

E 72 Conducting Strength Tests of Panels for Building Construction.²

3. Definitions

3.1 *General*—The definition of terms used in this specification shall be in accordance with Definitions D 1554.

3.2 *insulating board (cellulosic fiber) structural and decorative*—a fibrous-felted, homogeneous panel made from ligno-cellulosic fi-

bers (usually wood or cane) and having a density of less than 31 lb/ft³ (497 kg/m³) but more than 10 lb/ft³ (160 kg/m³). It is characterized by an integral bond which is produced by interfelting of the fibers, but which has not been consolidated under heat and pressure as a separate stage in manufacture. Other materials may be added during manufacture to improve certain properties.

4. Requirements

4.1 *General*—All insulating board products represented as conforming to this specification shall meet all applicable requirements as set forth in this section. Required test methods are given in Methods C 209. Reference to standard nomenclature and definitions that apply to this specification is given in Section 2.

4.2 *Composition*—Insulating board (cellulosic fiber) structural and decorative shall be manufactured from refined or partly refined ligno-cellulosic (wood or cane) fibers, by a felting or molding process, into homogeneous panels. Other ingredients may be added to provide or improve certain properties such as strength and water resistance, in addition to surface finishes for decorative products and special coatings which impart resistance to flame spread. The material is subjected to such drying temperatures as to effect complete

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² Annual Book of ASTM Standards, Part 18.

³ Annual Book of ASTM Standards.



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destruction of rot producing fungi.

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

4.4 *Physical Properties*—Insulating board shall have the limiting property values shown in Tables 3 and 4 when tested according to the methods outlined in Methods C 209.

4.5 *Moisture Content*—The insulating board shall not exceed 10 weight % moisture content when shipped from the factory.

4.6 *Tolerances*—The tolerance for length and width of any size panel shall be $+0, -\frac{1}{16}$ in./ft (-5.2 mm/m), but the total tolerance shall not exceed $+0, -\frac{3}{8}$ in. (-9.5 mm). The tolerances for thickness are listed in Tables 1

and 2.

5. Workmanship and Finish

5.1 The surface of all boards shall be free of cracks, lumps, excessive departure from planeness, or other defects that adversely affect performance and appearance.

5.2 *Surface Finish*—The surface finishes of board shall be as specified in Tables 1 and 2.

5.3 *Edge Details*—The edge details of board shall be as specified in Tables 1 and 2.

6. Rejection

6.1 In case of rejection, the seller shall have the right to reinspect the rejected material on the site and resubmit the lot after removal of this portion of the material not conforming to the specified requirements.