



## Specification for Gypsum Ceiling Board<sup>1</sup>

This standard is issued under the fixed designation C 1395 / C 1395M; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope

1.1 This specification covers ½ in. [12.7 mm] thick gypsum ceiling board designed for use on interior ceilings with framing spaced not more than 24 in. [610 mm] on center and that affords a surface suitable to receive water-based texture and other decoration. This product is also suitable for use on interior walls.

1.2 The values stated in either inch-pound units or SI (metric) are to be regarded separately as standard. Within the text, the SI units are shown in brackets. The values stated in each system shall be used independent of the other. Values from the two systems shall not be combined.

### 2. Referenced Documents

#### 2.1 ASTM Standards:

- C 11 Terminology Relating to Gypsum and Related Building Materials and Systems<sup>2</sup>
- C 473 Test Methods for Physical Testing of Gypsum Panel Products<sup>2</sup>
- C 645 Specification for Nonstructural Steel Framing Members<sup>2</sup>
- C 1264 Specification for Sampling, Inspection, Rejection, Certification, Packaging, Marking, Shipping, Handling, and Storage of Gypsum Board<sup>2</sup>
- E 84 Test Methods for Surface Burning Characteristics of Building Materials<sup>3</sup>
- E 119 Test Methods for Fire Tests of Building Construction and Materials<sup>3</sup>

### 3. Terminology

3.1 Definitions used in this specification shall be in accordance with Terminology C 11.

### 4. Materials and Manufacture

4.1 Gypsum ceiling board shall consist of a noncombustible core, essentially gypsum, surfaced with paper bonded to the core.

4.2 *Gypsum ceiling board, type X (special fire-resistant)*, designates gypsum ceiling board complying with this specifi-

cation that provides not less than ¾ h fire-resistance for boards applied parallel with and on each side of load bearing 2 × 4 wood studs spaced 16 in. [406 mm] on centers with 6d coated nails, 1 ⅞ in. [48 mm] long, 0.0915 in. [2.3 mm] diameter shank, ¼ in. [6.4 mm] diameter heads, spaced 7 in. [178 mm] on centers with gypsum board joints staggered 16 in. [406 mm] on each side of the partition and tested in accordance with Test Methods E 119.

NOTE 1—Consult producers for independent test data on assembly details and fire resistance classifications for other types of construction. See official fire test reports for assembly particulars, materials, and classifications.

4.3 Gypsum ceiling board shall have a flame spread index of not more than 25 when tested in accordance with Test Method E 84.

### 5. Physical Properties

5.1 Specimens shall be taken from the samples obtained in accordance with Specification C 1264.

5.1.1 Specimens shall be tested in accordance with Test Methods C 473.

5.1.2 *Flexural Strength*—The specimens shall be tested face up and face down. The average breaking load shall be not less than that given in Table 1.

5.1.3 *Humidified Deflection*—The specimens shall have an average deflection of not more than ⅝ in. [8 mm].

5.1.4 *Core, End, and Edge Hardness*—The specimens shall have an average hardness of not less than 15 lbf [67 N] when tested by Method A and 11 lbf [49 N] when tested by Method B.

5.1.5 *Nail Pull Resistance*—The specimens shall have an average nail-pull resistance of not less 80 lbf [356 N] when tested by Method A and 77 lbf [343 N] when tested by Method B.

### 6. Dimensions and Permissible Variations

6.1 Specimens shall be taken from the samples obtained in accordance with Specification C 1264.

6.2 Thickness, width, length, and end squareness shall be determined in accordance with Test Methods C 473.

6.2.1 *Thickness*—The nominal thickness shall be ½ in. [12.7 mm] with permissible variations in the nominal thickness of ± ⅛ in. [0.4 mm] with permissible local variations of ± ⅛ in. [0.8 mm] from the nominal thickness.

6.2.2 *Width*—The width shall be up to 48 in. [1220 mm]

<sup>1</sup> This test method is under the jurisdiction of ASTM C-11 on Gypsum and Related Building Materials and Systems and is the direct responsibility of Subcommittee C11.01 on Specifications and Test Methods for Gypsum Products.

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<sup>2</sup> *Annual Book of ASTM Standards*, Vol 04.01.

<sup>3</sup> *Annual Book of ASTM Standards*, Vol 04.07.