



Designation: C 1278/C 1278M – 00

Standard Specification for Fiber-Reinforced Gypsum Panel¹

This standard is issued under the fixed designation C 1278/C 1278M; 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 fiber-reinforced gypsum panels described in 1.1.1-1.1.4.

1.1.1 *Interior Fiber-Reinforced Gypsum Panels* are designed to be used for walls, ceilings, or partitions and affords a suitable surface to receive decoration.

1.1.2 *Water Resistant Fiber-Reinforced Gypsum Backing Panels* are designed primarily to be used as a base for the application of ceramic or plastic tile on walls or ceilings. This product is also suitable for decoration.

1.1.3 *Exterior Fiber-Reinforced Gypsum Soffit Panels* are designed for use on exterior soffits and carport ceilings that are completely protected from contact with liquid water.

1.1.4 *Water Resistant Exterior Fiber-Reinforced Gypsum Sheathing Panels* are designed for use as sheathing on buildings.

1.2 Specifications applicable to all fiber-reinforced gypsum panels are located in Sections 1-4 and 9-11 except as modified by applicable product sections. Specifications applicable to specific panels are located in the following sections:

Interior Fiber-Reinforced Gypsum Panels	5
Water-Resistant Fiber-Reinforced Gypsum Backing Panels	6
Exterior Fiber-Reinforced Gypsum Soffit Panels	7
Water-Resistant Exterior Fiber-Reinforced Gypsum Sheathing Panels	8

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

1.4 The text of this specification references notes and footnotes that provide explanatory material. These notes and footnotes shall not be considered as requirements of the standard.

2. Referenced Documents

2.1 ASTM Standards:

- C 11 Terminology Relating to Gypsum and Related Building Materials and Systems²
- C 22 Specification for Gypsum²

¹ This specification is under the jurisdiction of ASTM Committee C11 on Gypsum and Related Building Materials and is the direct responsibility of Subcommittee C11.01 on Specifications and Test Methods for Gypsum Products.

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² *Annual Book of ASTM Standards*, Vol 04.01.

C 473 Test Methods for Physical Testing of Gypsum Board Products and Gypsum Lath²

C 645 Specification for Nonstructural Steel Framing Members²

C 1264 Specification for Sampling, Inspection, Rejection, Certification, Packaging, Marking, Shipping, Handling, and Storage of Gypsum Board²

E 84 Test Method for Surface Burning Characteristics of Building Materials³

E 96 Test Methods for Water Vapor Transmission of Materials⁴

E 119 Test Methods for Fire Tests of Building Construction and Materials³

3. Terminology

3.1 *Definitions*—Definitions of terms shall be in accordance with Terminology C 11.

4. Materials and Manufacture

4.1 Fiber-reinforced gypsum panels shall consist essentially of gypsum with fibers dispersed throughout.

4.1.1 *Gypsum*—Specification C 22.

4.1.2 *Fibers*—Cellulose, derived from paper, paperboard stock, wood, or other organic material.

4.2 The back surface of foil-backed fiber-reinforced gypsum panels shall in addition be covered with aluminum foil.

4.3 Water-resistant fiber-reinforced gypsum panels shall be treated with a material that imparts water-resistance throughout.

4.4 Fiber-reinforced gypsum panels, type X (special fire-resistant) designates fiber-reinforced gypsum panels complying with this specification that provide not less than 1-h fire resistance for panels 5/8-in. [15.9-mm] thick or 3/4-h fire resistance for panels 1/2-in. [12.7-mm] thick, applied parallel with and on each side of load bearing 2 by 4 wood studs spaced 16 in. [406 mm] on center with 6d coated nails, 1 7/8-in. [48-mm] long, 0.0915-in. [2.3-mm] diameter shank, 1/4-in. [6.4-mm] diameter heads, spaced 7 in. [178 mm] on center with fiber-reinforced gypsum panel 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

³ *Annual Book of ASTM Standards*, Vol 04.07.

⁴ *Annual Book of ASTM Standards*, Vol 04.06.

*A Summary of Changes section appears at the end of this standard.