



Designation: C 442/C 442M – 99a

Standard Specification for Gypsum Backing Board, Gypsum Coreboard, and Gypsum Shaftliner Board¹

This standard is issued under the fixed designation C 442/C 442M; 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.

This standard has been approved for use by agencies of the Department of Defense.

1. Scope *

1.1 This specification covers gypsum board designed to be used as a base in multilayer systems, as a gypsum stud or core in semi-solid or solid gypsum board partitions, or in shaftwall assemblies.

1.2 The values stated in inch-pound units are to be regarded 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.

1.3 The terms “backing board,” “coreboard,” and “shaftliner board,” refer to different end uses of the gypsum board specified in this specification. The term “gypsum backing board,” in this specification, shall include gypsum coreboard and gypsum shaftliner board unless otherwise stated.

1.4 The text of this specification references notes and footnotes which provide explanatory material. These notes and footnotes (excluding those in tables and figures) shall not be considered as requirements of the specification.

2. Referenced Documents

2.1 ASTM Standards:

C 11 Terminology Relating to Gypsum and Related Building Materials and Systems²

C 36 Specification for Gypsum Wallboard²

C 473 Test Methods for Physical Testing of Gypsum Panel Products²

C 645 Specification for Non-Load Bearing (Axial) Steel Studs, Runners (Tracks), and Rigid Furring Channels for Screw Application of Gypsum Board²

C 1264/C 1264M 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.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *gypsum backing board*, *n*—a ¼ to ⅝-in. [6.4 to 15.9-mm] gypsum board used as a backing for gypsum wallboard, acoustical tile, or other dry cladding.

3.2.2 *gypsum coreboard*, *n*—a ¾ or 1-in. [19.0 to 25.4-mm] gypsum board used as a gypsum stud or core in semisolid or solid gypsum board partitions.

3.2.3 *gypsum shaftliner board*, *n*—a ¾ or 1-in. [19.0 or 25.4-mm] gypsum board used in shaftwall assemblies.

4. Materials and Manufacture

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

4.2 Gypsum coreboard is a single ¾-in. [19.0-mm] or 1-in. [25.4-mm] thick board or is composed of two factory laminated boards to provide ¾-in. [19.0-mm] or 1-in. [25.4-mm] total nominal thickness.

4.3 Gypsum shaftliner board is a single ¾-in. [19.0-mm] or 1-in. [25.4-mm] thick board.

4.4 Foil-backed gypsum backing board shall consist of gypsum backing board with a layer of aluminum foil laminated to the back surface.

4.5 *Gypsum Backing Board, Type X (Special Fire-Resistant)*:

4.5.1 Gypsum backing board, type X, designates gypsum backing board, except gypsum coreboard and gypsum shaftliner board, complying with this specification that provides not less than 1-h fire-resistance for boards ⅝-in. [15.9-mm] thick or ¾-h fire-resistance for boards ½-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, 1⅞-in. [48-mm] long, 0.0915-in. [2.3-mm] diameter

¹ This specification is under the jurisdiction of ASTM Committee 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.

Current edition approved Oct. 10, 1999. Published November 1999. Originally published as C 442 – 59 T. Last previous edition C 442 – 99.

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

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.