

ICC-ES Evaluation Report



ESR-3692

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A Subsidiary of the International Code Council®

DIVISION: 09 00 00—FINISHES Section: 09 29 00—Gypsum Board

REPORT HOLDER:

CERTAINTEED GYPSUM, INC.

EVALUATION SUBJECT:

EASI-LITE™ GYPSUM BOARD

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2018, 2015, 2012 and 2009 International Building Code[®] (IBC)
- 2018, 2015, 2012 and 2009 International Residential Code® (IRC)

Properties evaluated:

- Physical properties
- Surface-burning characteristics

2.0 USES

Easi-Lite™ Gypsum Board is used as interior gypsum wallboard and gypsum ceiling board complying with IBC Section 2506 and IRC Section R702.3, in buildings of all construction types under the IBC or buildings constructed under the IRC when installed in accordance with IBC Section 2509 and IRC Section R702.3. The boards are also used as ceiling board installed in a parallel-orperpendicular-to-24-inch-on-center-framing orientation as described in Section 4.1 and in perpendicular- or parallel-to-24-inch-on-center-framing orientation when installed as described in Section 4.2 of this report.

3.0 DESCRIPTION

Easi-Lite™ Gypsum Board is code-compliant gypsum wallboard and ceiling board complying with ASTM C1396 as required by IBC Section 2506 and IRC Section R702.3. Additionally, the boards have a sag resistance exceeding the minimum requirements found in ASTM C1396 for sag-resistant gypsum ceiling board. The board is ¹/₂-inch (12.7 mm) thick, up to 54 inches (1372 mm) wide, and up to 16 feet (4877 mm) in length. The boards have a wallboard backing paper and a paper face that wraps around the tapered edges, overlapping the backing paper to provide protection to the gypsum core. The boards have a flame spread index of not more than 25 and a smoke developed index of not more than 450 in accordance with ASTM E84 and Class A finish rating in accordance with Section 803.1 of the IBC.

4.0 INSTALLATION

The half-inch Interior Ceiling Board must be installed in accordance with the manufacturer's published installation instructions, ASTM C840, and this report. Easi-Lite™ Gypsum Board may be installed on wood and steel framing as prescribed by code for ¹/₂-inch-thick gypsum wallboard and ceiling board conforming to ASTM C1396. All gypsum board joints must be taped and sealed with joint compound, in accordance with ASTM C840.

Due to their enhanced sag resistance, the boards are also recognized for installation with their long dimension oriented parallel to 24-inch-on-center ceiling framing when installed in accordance with Section 4.1 or 4.2 of this report, supporting insulation, and finished with a water-based, spray-texture ceiling finish. The weight of the overlaid unsupported insulation must not exceed 3.0 psf (32.2 kg/m²). Moist-installed blown-in cellulosic insulation must not be used.

4.1 Mechanical Fastener Attachment:

Mechanical fasteners used to install the gypsum board in ceilings to wood or steel framing must, at a minimum, be equivalent to those prescribed for ¹/₂-inch-thick gypsum ceiling board installed parallel or perpendicular to 24-inch-on-center framing in accordance with ASTM C840, GA-216 (The Gypsum Association's Application and Finishing of Gypsum Panel Products) or IRC Table R702.3.5. See Table 1 for fastener spacing for ceiling applications.

4.2 Polyurethane Adhesive Attachment:

Polyurethane adhesives used to install Easi-Lite™ Gypsum Board must comply with the ICC-ES Acceptance Criteria for Two-part Polyurethane Adhesives Used to Attach Gypsum Board to Wood Framing (AC223) and must be recognized in a current ICC-ES evaluation report or documentation on the adhesives in accordance with AC223 shall be submitted to the code official for approval. The adhesive must be applied in accordance with the adhesive manufacturer's published installation instructions and ICC-ES evaluation report. Use of polyurethane adhesive attachment is limited to factory applications for prefabricated wood frame buildings of Type V construction under the IBC, and to buildings built in accordance with the IRC.

For polyurethane adhesive attachment the application of the boards in ceilings may be either perpendicular or parallel to wood framing spaced at a maximum of 24 inches (610 mm) on center. The minimum average bead width for adhesive used to attach the gypsum board in ceilings must be the minimum bead size specified in the evaluation report on the rigid polyurethane adhesive, or 1 inch (25 mm), whichever is larger. The adhesive must be applied at the intersections of the wood framing and gypsum ceiling board



and on both sides at gypsum ceiling board joints. At least one bead of adhesive must be applied to intermediate framing members.

5.0 CONDITIONS OF USE

The Easi-Lite™ Gypsum Board described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 Easi-Lite™ Gypsum Board must be installed in accordance with the code; GA-216 or ASTM C840 (for IBC applications); the manufacturer's published installation instructions; and this report. In the event of a conflict between this report and the manufacturer's published installation instructions, this report governs.
- 5.2 Where a vapor retarder is required, no vapor retarder is to be installed in locations where it might prevent the two-part polyurethane adhesive from properly adhering the board to the wood framing.
- 5.3 The gypsum board must not be used in excessively moist environments, such as gang showers.
- **5.4** The gypsum board installed in ceilings must be installed in a multi-span condition.
- 5.5 The use of the gypsum board as a thermal barrier for separating foam plastic from the interior of the building in accordance with IBC Section 2603.4 and IRC Section R316.4 in ceilings and walls attached to wood framing using a two-part polyurethane adhesive, is outside the scope of the report.

- 5.6 Horizontal diaphragm applications with the gypsum board in ceilings are outside the scope of this report.
- 5.7 Use of the gypsum board in fire-resistance-rated assemblies is outside the scope of this report.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for 1/2-inch Enhanced Sag-resistant Gypsum Ceiling Board (AC417), dated January 2019 (editorially revised March 2019).

7.0 IDENTIFICATION

- 7.1 The Easi-Lite™ Gypsum Board described in this report is identified by a manufacturing code, printed on the back face of each board, which notes the plant identification letter, time and date of manufacture, and the evaluation report number (ESR-3692). In addition, the paper tape on each end of each bundle (there are two boards per bundle) includes the manufacturer's name and address, the ASTM specification (C1396), the product name and the board size. The bundle end tapes may be omitted when a placard containing the identification information in this section is affixed to the side of each shipping unit.
- **7.2** The report holder's contact information is the following:

CERTAINTEED GYPSUM, INC. **20 MOORES ROAD MALVERN, PENNSYLVANIA 19355** www.certainteed.com/gypsum

| TARIF 1—FASTENER | SPACING FOR WOOD OR STR | EL FRAMED CEILING APPLICATION |
|------------------|-------------------------|-------------------------------|
| | | |

| LONG DIMENSION OF EASI-LITE™ GYPSUM BOARD FOR CEILINGS IN RELATION TO DIRECTION OF FRAMING MEMBERS | MAXIMUM CENTER-TO-CENTER SPACING OF FRAMING MEMBERS (inches) | METHOD OF ATTACHMENT ^{1, 2, 3, 4} |
|---|--|---|
| Perpendicular or Parallel | 24 | No. 13 gage, 1 ³ / ₈ -inch-long, 1 ⁹ / ₆₄ -inch-head nails or 0.098-inch-diameter, 1 ¹ / ₄ -inch-long angular ringed nails spaced 7 inches on center. -or- Screws spaced 12 inches on center: 1 ¹ / ₄ inch long for wood framing, or 1 inch long for steel framing. |

Notes:

¹ Screws for installation to wood framing must be Type W or Type S complying with ASTM C1002. Screws with steel framing up to 0.033-inch thick must be Type S complying with ASTM C1002. Screws for steel framing 0.033 to 0.0112 thick must comply with ASTM C954.

² With wood framing, increasing the spacing of the fasteners is acceptable when an adhesive complying with ASTM C557 is used in conjunction with the indicated fasteners. A maximum spacing of 16 inches is acceptable for nails and screws for application to 16-inch-on-center framing. A maximum spacing of 12 and 16 inches, respectively, is acceptable for nails and screws for application to 24-inch-on-center framing. The adhesive must be applied in a continuous 3/8-inch-diameter bead. Where the edges of two pieces of the gypsum ceiling board occur on the same framing member, two continuous beads of adhesive must be applied to the framing member.

³ Double-nailing using two nails 2 inches apart, is acceptable if the pairs of nails are spaced 12 inches on center in the field of the board. Single nails spaced 7 inches on center must be used around the perimeter.

⁴ Attachment using 16 gage staples with 1-inch crowns and 1¹/₄-inch legs at 7 inches on center around the perimeter, and 1¹/₄-inch-long Type W screws at 12 inches on center in the field, is acceptable for parallel or perpendicular-to-maximum-24-inch-on-center wood framing, in factory applications.