

ICC-ES Evaluation Report

ESR-3365

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A Subsidiary of the International Code Council®

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

REPORT HOLDER:

USG CORPORATION 550 WEST ADAMS STREET CHICAGO, ILLINOIS 60661 (312) 436-4000 www.usg.com

EVALUATION SUBJECT:

SHEETROCK[®] BRAND ULTRALIGHT GYPSUM PANELS, AND SHEETROCK[®] BRAND MH ULTRALIGHT CEILING PANELS ULTRA-BASE™

ADDITIONAL LISTEE:

ATLANTIC WALLBOARD LIMITED 30 JERVIS LANE SAINT JOHN, NEW BRUNSWICK E2E 6B7 CANADA

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2012 and 2009 International Building Code® (IBC)
- 2012 and 2009 International Residential Code® (IRC)

Properties evaluated:

- Physical properties
- Surface-burning characteristics

2.0 USES

Sheetrock[®] Brand UltraLight Gypsum Panels and Sheetrock[®] Brand MH UltraLight Ceiling Panels Ultra-Base™ are 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. The panels are also used as ceiling board installed in a parallel-to-24-inch-on-center-framing orientation when installed as described in Sections 4.1 and 4.2 of this report.

3.0 DESCRIPTION

Sheetrock[®] Brand UltraLight Gypsum Panels and Sheetrock[®] Brand MH UltraLight Ceiling Panels Ultra-Base[™] are code-compliant gypsum wallboard and ceiling board complying with ASTM C1396 as required by IBC Section 2506 and IRC Section R702.3. Additionally, the

panels have a sag resistance exceeding the minimum requirements found in ASTM C1396 for sag-resistant gypsum ceiling board. The panels are ¹/₂ inch (12.7 mm) thick, 4 feet (1220 mm) wide, and up to 14 feet (4267 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 panels have a Class A finish in accordance with ASTM E84 and Section 803.1 of the IBC.

4.0 INSTALLATION

Sheetrock[®] Brand UltraLight Gypsum Panels and Sheetrock[®] Brand MH UltraLight Ceiling Panels Ultra-Base[™] may be installed on wood or 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 panels are also recognized for installation with their long dimension oriented parallel to 24-inch-on-center ceiling framing, supporting insulation, and finished with a water-based, spray-texture ceiling finish. The panels are installed using mechanical fasteners or polyurethane adhesives as described, respectively, in Section 4.1 or Section 4.2. The weight of the overlaid unsupported insulation must not exceed 2.0 psf (96 N/m²). Moist-installed blown-in cellulosic insulation must not be used.

4.1 Mechanical Fastener Attachment:

Mechanical fasteners used to install the gypsum ceiling board to wood or steel framing must, at a minimum, be equivalent to those prescribed for \$^1/_2\$-inch-thick ceiling board installed perpendicular to 24-inch-on-center framing in accordance with GA-216 (The Gypsum Association's Application and Finishing of Gypsum Panel Products) or IRC Table R702.3.5.

4.2 Polyurethane Adhesive Attachment:

Polyurethane adhesives used to install Sheetrock® Brand UltraLight Gypsum Panels and Sheetrock® Brand MH UltraLight Ceiling Panels Ultra-Base™ must comply with the ICC-ES Acceptance Criteria for Two-part Polyurethane Adhesives Used to Attach Gypsum Board to Wood Framing (AC223), and be recognized in a current ICC-ES evaluation report. The adhesive must be applied in accordance with the adhesive manufacturer's published installation instructions and ICC-ES evaluation report. 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.

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The application of the ceiling panels may be either perpendicular or parallel to wood framing spaced 24 inches (610 mm) or less on center. The minimum average bead width for adhesive used to attach the gypsum ceiling board 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 ceiling panel 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 Sheetrock[®] Brand UltraLight Gypsum Panels and Sheetrock[®] Brand MH UltraLight Ceiling Panels Ultra-Base[™] described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 Sheetrock[®] Brand UltraLight Gypsum Panels and Sheetrock[®] Brand MH UltraLight Ceiling Panels Ultra-Base[™] 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 framing.

- 5.3 The gypsum board must not be used in excessively moist environments, such as in gang showers.
- 5.4 The ceiling board must be installed in a multi-span condition.
- 5.5 Use of the gypsum ceiling board attached to wood framing using a two-part polyurethane adhesive as a thermal barrier for separating foam plastic from the interior of the building in accordance with IBC Section 2603.4, is outside the scope of this report.
- 5.6 Horizontal diaphragm applications with the ceiling board 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 November 2012.

7.0 IDENTIFICATION

The Sheetrock[®] Brand UltraLight Gypsum Panels and Sheetrock[®] Brand MH UltraLight Ceiling Panels Ultra-Base[™] described in this report are identified by a manufacturing code, printed on the back face of each board, that notes the plant number, time and date of manufacture, and the evaluation report number (ESR-3365). 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 panel size.

TABLE 1—FASTENER SPACING FOR WOOD OR STEEL FRAMED CEILING APPLICATION

| LONG DIMENSION OF CEILING PANELS IN RELATION TO DIRECTION OF FRAMING MEMBERS | MAXIMUM CENTER-TO-CENTER SPACING OF FRAMING MEMBERS (inches) | METHOD OF ATTACHMENT |
|--|--|---|
| Parallel | 24 | No. 13 gage, 1 ³ / ₈ -inch-long, ¹⁹ / ₆₄ -inch-head nails or 0.098- inch-diameter, 1 ¹ / ₄ -inch-long annular ringed nails spaced 7 inches on center. |
| Perpendicular | 24 | -or- Screws spaced 12 inches on center: 1 ¹ / ₄ inches long for wood framing, or 1 inch long for steel framing |

Notes

¹Screws 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.

²With 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.

³Double-nailing using two nails 2 to $2^{1}/_{2}$ inches apart, is acceptable if the pairs of nails are spaced 12 inches on center in the field of the panel. Single nails spaced 7 inches on center must be used around the perimeter.

⁴Attachment 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-to-maximum-24-inch-on-center wood framing, in factory applications.