

UL Evaluation Report

UL ER R3501-03

Issued: February 11, 2019

Visit UL's Product IQ Certifications Search: <https://iq.ulprosepector.com> for current status of report.

UL Category Code: ULFP

CSI MasterFormat®

DIVISION: 09 00 00 - FINISHES
Sub-level 2: 09 20 00 – Plaster and Gypsum Board
Sub-level 3: 09 21 00 – Plaster and Gypsum Board Assemblies
Sub-level 4: 09 21 16 – Gypsum Board Assemblies

Sub-level 3: 09 29 00 – Gypsum Board
Sub-level 4: 09 29 82 – Gypsum Board Fireproofing

COMPANY:

National Gypsum Company
2001 Rexford Rd.
Charlotte, NC 28211-3415
www.NationalGypsum.com

1. SUBJECT:

Gold Bond® Fire-Shield® gypsum board family of products as described in Table 1 with GridMarX® and MaX 12™ imprinted on the face of the board. GridMarX® and MaX 12™ is a 12 inch on center optimized fastener pattern for single layer interior walls using the following products:

Table 1

UL PRODUCT DESIGNATION	TRADENAME	THICKNESS, inches
FSW	Gold Bond® Fire-Shield® gypsum board	5/8
FSW, FSW-3	Gold Bond® XP Fire-Shield® gypsum board	5/8
FSW-5	Gold Bond® Hi-Impact XP Fire-Shield® gypsum board	5/8
FSW-5	Gold Bond® Hi-Abuse XP Fire-Shield® gypsum board	5/8
FSW-6	Gold Bond® Fire-Shield® eXP Interior Extreme gypsum board	5/8

For the purpose of this report, the trade name and/or UL product designation shown above for any of the products may be used. Refer to III. 1 for details of fastening pattern.

2. SCOPE OF EVALUATION

- 2009, 2012, 2015, 2018 International Building Code (IBC)
- 2009, 2012, 2015, 2018 International Residential Code (IRC)

The products were evaluated for the following properties:

- Surface Burning Characteristics
- Physical Properties
- Noncombustibility
- Fire-resistance-rated construction

3. REFERENCED DOCUMENTS

- ANSI/UL 263 (ASTM E119), Fire Tests of Building Construction and Materials, Fourteenth Edition with revisions through March 2, 2018.
- ANSI/UL 723 (ASTM E84), Test for Surface Burning Characteristics of Building Materials, Eleventh Edition with revisions through April 19, 2018.
- ASTM E136-16, Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C.
- ASTM C1396-14a, Standard Specification for Gypsum Board.
- ASTM C1658-13, Standard Specification for Glass Mat Gypsum Panels
- ICC-ES Acceptance Criteria for Quality Documentation (AC10), dated January 2018.

4. USES

The Gold Bond® Fire-Shield® gypsum board family of products described in section 1 are imprinted on the face side of the board with GridMarX® and MaX 12™, a 12 inch on center optimized fastener pattern for single layer interior walls, and are intended for use where one hour fire-resistive, non-load bearing wall assemblies are required and when installed in accordance with the applicable section(s) of 2009, 2012, 2015 and 2018 IBC and/or in accordance with the fire-rated assemblies described in Section 6.2 of this report.

5. PRODUCT DESCRIPTION

5.1 General:

The Gold Bond® Fire-Shield® gypsum board family of products consists of a fire-resistant Type X, non-combustible gypsum core faced with paper on face, back, and long edges conforming to the physical property requirements of ASTM C1396+ or ASTM C1658 in accordance with Section R702.3.1 of the 2009, 2012, 2015 and 2018 IRC. GridMarX® and MaX12™ installation guide marks are oriented in the machine direction and printed on the face paper of the board in each taper and at 16 inch, 24 inch, and 32 inch increments across the field of the board. These guide marks align with standard building dimensions and help to quickly identify spacing of framing members and fastener patterns.

The gypsum board panels described in this report are recognized as Class A finish materials with a flame spread index of 25 or less and smoke-developed index of 450 or less, when tested in accordance with UL723 (ASTM E84) as set forth in Section 803.1.1 of the 2009, 2012, 2015, or Section 803.1.2 of the 2018 IBC. These boards, having a noncombustible core of gypsum complying with ASTM E136, are considered a noncombustible material, as described in Section 703.4.2 of the 2009 IBC and Section 703.5.2 of the 2012, 2015, and 2018 IBC.

+The gypsum board products described in this report comply with the requirements of ASTM C1396-14. The gypsum board products in this report have not been evaluated for volatile sulfur compounds as required by ASTM C1396-14A, Section 4.7.

6. INSTALLATION

6.1 General:

The manufacturers published installation instructions and this report must be strictly adhered to, and a copy of the instructions must be available at all times on the jobsite during installation.

6.2 UL fire-resistance-rated assemblies:

The products described in this report have been evaluated as a component in assemblies rated for fire resistance in accordance with Section 703.2 of the 2009, 2012, 2015, and 2018 IBC. Refer to the UL Fire Resistance Certification information for File R3501 (CKNX) for applicable UL design coverage and details of the fire-resistance-rated assemblies covered by this report. Fire resistance ratings are only applicable when the assemblies are constructed in accordance with the published designs.

The products described in this report are for use in the following UL fire resistance designs with or without the imprinted 12 in. OC spacing pattern:

Product Designation	Thickness, in.	UL Design No.
FSW, FSW-3, FSW-5, FSW-6	5/8	U420, U465, V417, V438, V450, V482, V483, V486, V488, W417, W421, W444.

6.2.1 One-Hour fire-resistance-rated, non-load bearing wall assembly – UL Design Nos. U465 and V438

Channel shaped runners measuring 3-5/8 in. deep (min.) and formed from 25 MSG galvanized steel (min.) are attached to floor and ceiling with steel fasteners spaced 24 in. O.C. max. Channel shaped steel studs formed from 25 MSG (min.) galvanized steel are cut 3/4 in. less than assembly height and spaced 24 in. OC (max.) are friction fit into the runners. Mineral wool or glass fiber may be optionally placed into the wall cavity, friction fit between studs and runners. Design U465 also allows optional sprayed fiber insulation in the wall cavity in lieu of mineral wool or glass fiber insulation. Types FSW, FSW-3, FSW-5, or FSW-6 gypsum panels applied vertically or horizontally with joints centered over studs. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Gypsum panels fastened to framing with 1 in. long Type S steel screws spaced 12 in. OC along vertical edges and in the field. Screws spaced a max 12 in. along the top and bottom edges of the wall for both vertical and horizontal applications. Refer to the individual designs on UL's Online Fire Resistance Designs for additional details.

6.2.2 One-Hour fire-resistance-rated, non-load bearing wall assembly – UL Design No. V488

Channel shaped runners measuring 2-1/2 in. deep (min.) and formed from 25 MSG galvanized steel (min.) are attached to floor and ceiling fasteners in two rows with steel fasteners spaced 24 in. O.C. max. Channel shaped steel studs formed from 25 MSG (min.) galvanized steel and cut 1/2 in. less than assembly height are spaced 24 in. OC (max.) and evenly staggered between the two rows of floor and ceiling runners. Studs are friction fit into the runners. Glass fiber insulation may be optionally placed into the wall cavity. Types FSW, FSW-3, FSW-5 or FSW-6 gypsum panels applied vertically or horizontally with joints centered over studs. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Gypsum panels fastened to framing with 1 in. long Type S steel screws 12 in. OC along vertical edges and in the field. Screws spaced a max 12 in. along the top and bottom edges of the wall for both vertical and horizontal applications. Refer to the individual designs on UL's Online Fire Resistance Designs for additional details.

7. CONDITIONS OF USE

The Gold Bond® Fire-Shield® gypsum board products described in this report, comply with, or are suitable alternatives to what is specified in, those codes listed in sections 4, 5 and 6 of this report, subject to the following conditions:

7.1 The products must be manufactured, identified, and installed in accordance with this report and published fire-resistance-rated assembly installation methods, the manufacturer's published installation instructions, and the applicable code. If there is a conflict between the manufacturers published installation instructions and this report, this report governs.

7.2 Indicated stud spacing are maximum, and stud sizes (depths) and gages are minimums for the partition construction set forth in this report.

7.3 See UL's Product iQ Certifications Search for products evaluated as a part of fire-resistance-rated assemblies in accordance with UL263, Gypsum Board (CKNX).

7.4 The Gold Bond® Fire-Shield® gypsum board family of products described in this report are manufactured by National Gypsum Company, located at the manufacturing locations named below, under the UL LLC Classification and Follow-Up Service Program, which includes inspections in accordance with the quality elements of ICC-ES Acceptance Criteria for Quality Documentation, AC10.

Manufacturing locations:

Gibson, FL	Burlington, NJ	Baltimore, MD
Ft. Dodge, IA	Garden City, GA	Medicine Lodge, KS
Long Beach, CA	Mt. Holly, NC	National City, MI
Phoenix, AZ	Portsmouth, NH	Richmond, CA
Rotan, TX	Shippingport, PA	Shoals, IN
Waukegan, IL	Westwego, LA	

8. SUPPORTING EVIDENCE

8.1 Manufacturer's product literature and quality documentation.

8.2 UL Classification reports in accordance with UL263 (ASTM E119). See UL Product Certification Category for Gypsum Board (CKNX).

8.3 Reports in accordance with UL723 (ASTM E84).

8.4 Reports in accordance with ASTM C1396 (excluding mold resistance) and C1658.

8.5 Reports in accordance with ASTM E136.

9. IDENTIFICATION

The products described in this Evaluation Report are identified by a marking bearing the report holder's name (National Gypsum Company), the plant identification, the product designation, the UL Classification Mark, and the Evaluation Report number ER3501-03. The validity of the evaluation report is contingent upon this identification appearing on the product.

10. USE OF UL EVALUATION REPORT

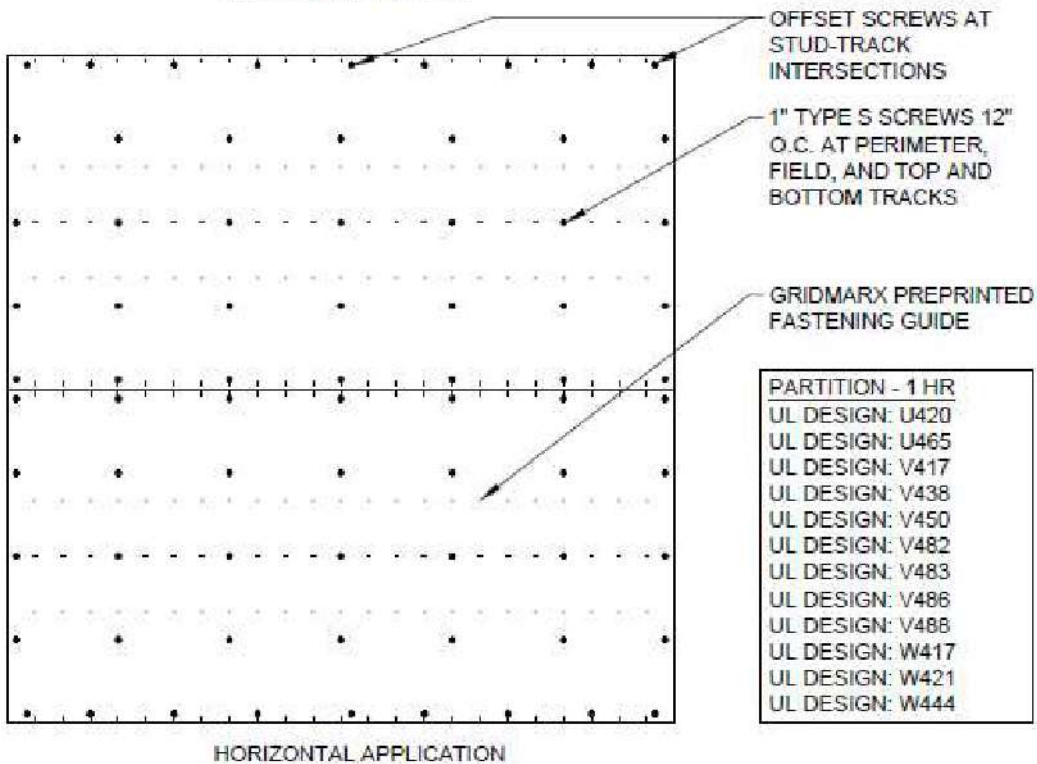
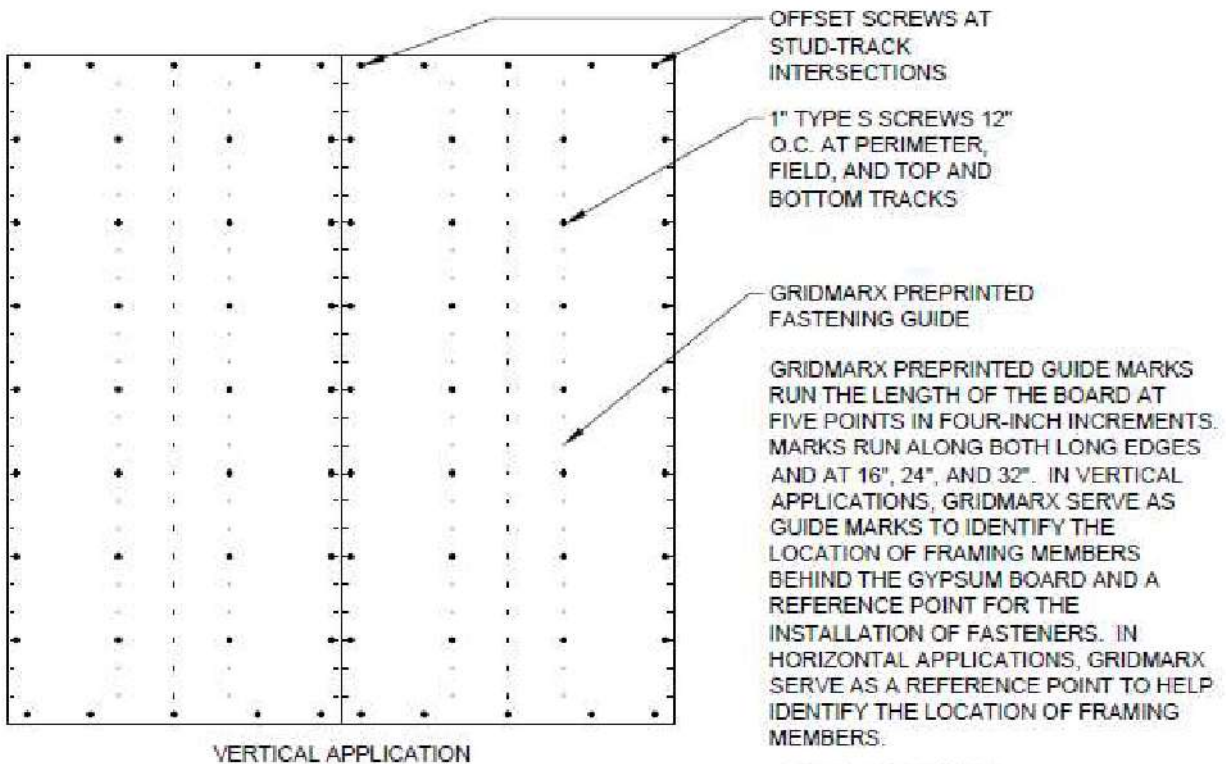
10.1 The approval of building products, materials or systems is under the responsibility of the applicable authorities having jurisdiction.

10.2 UL Evaluation Reports shall not be used in any manner that implies an endorsement of the product, material or system by UL.

10.3 The current status of this report, as well as a complete directory of UL Evaluation Reports may be found at UL.com via UL's [Product iQ Certifications Search](#).

ILL. 1

GridMarX® / MaX™ 12 Fastening Pattern



This UL Evaluation Report is not an endorsement or recommendation for use of the subject and/or product described herein. This report is not the UL Listing or UL Classification Report that covers the subject product. The subject product's UL Listing or UL Classification is covered under a separate UL Report. UL disclaims all representations and warranties whether express or implied, with respect to this report and the subject or product described herein. Contents of this report may be based on data that has been generated by laboratories other than UL that are accredited as complying with ISO/IEC Standard 17025 by the International Accreditation Service (IAS) or by any other accreditation body that is a signatory to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA). The scope of the laboratory's accreditation shall include the specific type of testing covered in the test report. As the accuracy of any non-UL data is the responsibility of the accredited laboratory, UL does not accept responsibility for the accuracy of this data.