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ICC-ES Evaluation Report

ESR-3234

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Reissued 08/2018
This report is subject to renewal 08/2019.

DIVISION: 09 00 00—FINISHES
SECTION: 09 29 00—GYPSUM BOARD

REPORT HOLDER:

NATIONAL GYPSUM COMPANY

EVALUATION SUBJECT:

GOLD BOND® BRAND e²XP® 1/2-INCH INTERIOR EXTREME®; GOLD BOND® BRAND e²XP® 5/8-INCH FIRE-SHIELD® INTERIOR EXTREME® TYPE X; GOLD BOND® BRAND e²XP® 1/2-INCH TILE BACKER; AND GOLD BOND® BRAND e²XP® 5/8-INCH FIRE-SHIELD® TILE BACKER TYPE X



“2014 Recipient of Prestigious Western States Seismic Policy Council (WSSPC) Award in Excellence”



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A Subsidiary of the International Code Council®

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1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2009 *International Building Code*® (IBC)
- 2009 *International Residential Code*® (IRC)
- 2013 *Abu Dhabi International Building Code* (ADIBC)[†]

[†]The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

Properties evaluated:

- Physical properties
- Fire resistance
- Surface burning characteristics

2.0 USES

Gold Bond® BRAND e²XP® Interior Extreme™ and Gold Bond® BRAND e²XP® Fire-Shield® Interior Extreme® Type X are used as gypsum panels for interior applications on both wood- and metal-framed construction as described in IBC Section 2508 and IRC Section R702.3. The gypsum panels may be used as a substrate for tile in interior applications outside of wet areas. Gold Bond® BRAND e²XP® Fire-Shield® Interior Extreme Type X may be used in fire-resistance-rated construction where a non-proprietary Type X gypsum board is specified.

Gold Bond® BRAND e²XP® Tile Backer and Gold Bond® BRAND e²XP® Fire-Shield® Tile Backer Type X are used on walls and ceilings as a base for tile in tub and shower areas, and in other interior locations where gypsum board is used, on both wood- and metal-framed construction as described in IBC Section 2509.2 and IRC Section R702.3.8. Gold Bond® BRAND e²XP® Fire-Shield® Tile Backer Type X may be used in fire-resistance-rated construction where a Type X gypsum board is specified.

3.0 DESCRIPTION

3.1 Gold Bond® BRAND e²XP® Interior Extreme:

Gold Bond® BRAND e²XP® Interior Extreme and Gold Bond® BRAND e²XP® Fire-Shield® Interior Extreme Type X are glass-mat gypsum panels complying with ASTM C1658. The panels have a water-resistant gypsum core with coated glass-fiber mat facers.

Gold Bond® BRAND e²XP® Interior Extreme panels are 1/2 inch (12.7 mm) in thickness, 48 inches (1220 mm) in width and available in various lengths. Gold Bond® BRAND e²XP® Fire-Shield® Interior Extreme Type X panels are 5/8 inch (15.9 mm) in thickness, 48 inches (1220 mm) in width and available in various lengths.

Gold Bond® BRAND e²XP® Interior Extreme and Gold Bond® BRAND e²XP® Fire-Shield® Interior Extreme Type X are Class A and exhibit a flame-spread index of 25 or less and a smoke-developed index of 450 or less, in accordance with ASTM E84.

3.2 Gold Bond® BRAND e²XP® Tile Backer:

Gold Bond® BRAND e²XP® Tile Backer and Gold Bond® BRAND e²XP® Fire-Shield® Tile Backer Type X are glass-mat gypsum panels complying with ASTM C1178. The panels have a water-resistant gypsum core with a glass-fiber mat embedded beneath the surface and one face covered with a grey acrylic coating.

Gold Bond® BRAND e²XP® Tile Backer is 1/2 inch (12.7 mm) in thickness and 48 inches (1220 mm) in width, and is available in various lengths. Gold Bond® BRAND e²XP® Fire-Shield® Tile Backer Type X is 5/8 inch (15.9 mm) in thickness and 48 inches (1220 mm) in width, and is available in various lengths.

Gold Bond® BRAND e²XP® Tile Backer and Gold Bond® BRAND e²XP® Fire-Shield® Tile Backer Type X are Class A and exhibit a flame-spread index of 25 or less and a smoke-developed index of 450 or less, in accordance with ASTM E84.

4.0 INSTALLATION

4.1 General:

Gold Bond® BRAND e²XP® Interior Extreme, Gold Bond® BRAND e²XP® Fire-Shield® Interior Extreme Type X, Gold Bond® BRAND e²XP® Tile Backer and Gold Bond® BRAND e²XP® Fire-Shield® Tile Backer Type X gypsum panels must be installed in accordance with the applicable code requirements for gypsum boards, and as further described in this section (Section 4.0). The manufacturer's published installation instructions must be available on the jobsite at all times during construction.

The gypsum panels must not be installed where the temperature may exceed 125°F (52°C), and must be installed when the ambient temperature at the time of installation is above 40°F (4°C) for mechanical attachment and 50°F (10°C) for adhesive attachment per ASTM C840.

Installation and finishing of the gypsum panels must be in accordance with the manufacturer's published installation instructions; GA 216 or ASTM C840, which are referenced in IBC Sections 2508 and 2509.2; and IRC Section R702.3.5, as applicable.

4.2 Substrates for Tile:

For walls, when 1/2-inch Gold Bond® BRAND e²XP® Tile Backer is used as a substrate for tile, nominally 2-by-4 wood studs or minimum No. 20 gage [0.030 inch thick (0.76 mm)] steel studs must be spaced no greater than 16 inches (406 mm) on center. If blocking is used to support all joints for 1/2-inch (12.7 mm) tile backer, or when 5/8-inch-thick (15.9 mm) tile backer is used, the framing must be spaced not greater than 24 inches (610 mm) on center. The gypsum panels may be applied vertically or horizontally.

For ceilings, framing must not exceed 12 inches (305 mm) on center for 1/2-inch Gold Bond® BRAND e²XP® Tile Backer, or 16 inches (406 mm) on center for the 5/8-inch Gold Bond® BRAND e²XP® Fire-Shield® Tile Backer Type X. The gypsum panels must be applied perpendicular to the framing.

Gold Bond® BRAND e²XP® Tile Backer gypsum panels must be installed with the grey coating side facing away from the framing. All joints between panels, in areas intended to receive ceramic tile, must be treated with 2-inch-wide (51 mm), 10-by-10, alkaline-resistant fiberglass mesh tape embedded in a skim coat of a latex-modified mortar complying with ANSI A118.4, or organic adhesive complying with ANSI A136.1. All joints between the tile backer and other substrates, not intended to receive ceramic tile, must be treated in accordance with the manufacturer's published installation instructions.

4.3 Fasteners:

Fasteners and fastener spacing must be as described in GA 216 or ASTM C840 and in accordance with the manufacturer's published installation instructions.

5.0 CONDITIONS OF USE

The Gold Bond® BRAND e²XP® Interior Extreme, Gold Bond® BRAND e²XP® Fire-Shield® Interior Extreme Type

X, Gold Bond® BRAND e²XP® Tile Backer and Gold Bond® BRAND e²XP® Fire-Shield® Tile Backer Type X gypsum panels 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 Installation must comply with this report, the manufacturer's published installation instructions and the applicable code. In the event of a conflict between the manufacturer's installation instructions and this report, this report governs.

5.2 The gypsum panels are for interior use only.

5.3 The gypsum panels must not be used as a nailing base.

6.0 EVIDENCE SUBMITTED

6.1 Manufacturer's published installation instructions.

6.2 Reports of physical property testing in accordance with ASTM C473 for compliance with ASTM C1178 and ASTM C1658.

6.3 Reports of surface burning characteristics testing in accordance with UL723.

6.4 Report of fire-resistance tests in accordance with UL263.

6.5 Quality control documentation.

7.0 IDENTIFICATION

7.1 The gypsum panels must be identified by a label bearing the National Gypsum Company name, the product name, the manufacturing plant identifier, the date code and the evaluation report number (ESR-3234).

7.2 The report holder's contact information is the following:

NATIONAL GYPSUM COMPANY
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