

Gold Bond® XP® Gypsum Board

09 29 00 / NGC

Technical Information
800.NATIONAL • 800.628.4662

DESCRIPTION

Gold Bond® XP® Gypsum Board consists of a mold-, mildew-, moisture- and fire-resistant gypsum core with a specially designed PURPLE® paper. The heavy PURPLE face paper and the gray back paper are 100-percent recycled and are resistant to mold, mildew and moisture. For speed of installation, GridMarX® guide marks are printed on the paper surface.

BASIC USES

Applications

- Use it on both wood- and steel-framed construction for interior wall and ceiling applications.
- Use it as a tile backerboard in dry areas or areas with limited moisture, such as toilet or sink areas, and wall and ceiling areas above tile in tubs and showers.
- 1/2 in. (12.7 mm) XP® Fire-Shield® Type C, 5/8 in. (15.9 mm) XP® Fire-Shield® Type X, and 5/8 in. (15.9 mm) XP® Fire-Shield® Type C have specially formulated cores designed for use in specific fire-rated assemblies.

Advantages

- Suitable for all interior applications, including walls and ceilings. Also use it as a tile backerboard in dry areas and in areas with limited moisture.
- Resists the growth of mold per ASTM D3273 with a score of 10, the best possible score.
- Resists the growth of mold per ASTM G21 with a score of 0, the best possible score.
- Fire-resistant material with a gypsum core that will not support combustion or transmit temperatures greatly in excess of 212°F (100°C) until completely calcined, a slow process.
- Easily scored and snapped to exact size without sawing.
- Dimensionally stable product with negligible expansion and contraction under normal atmospheric conditions.
- 5/8 in. Fire-Shield products provide 1-hour fire ratings with fewer fasteners using MaX 12, the 12 in. o.c. optimized fastener pattern for perimeter and field in UL designs U420, U465, V417, V438, V450, V482, V483, V486, V488, W417, W421 and W444. Save time, money and installation costs with MaX 12. Visit MaX12.com for more information.
- Features GridMarX® guide marks on the board to allow for faster and more accurate installation.
- Approved for use in protected exterior soffit applications. Reference GA-216, *Application and Finishing of Gypsum Panel Products* for installation recommendations.

- Achieves GREENGUARD and GREENGUARD Gold Certification. GREENGUARD Certified products are certified to GREENGUARD standards for low chemical emissions into indoor air during product usage. For more information, visit: ul.com/gg.
- Qualifies as a low-VOC emitting material by meeting California Specification 01350. For more information, visit: calrecycle.ca.gov/greenbuilding/specs/section01350.

INSTALLATION RECOMMENDATIONS

General

- Install gypsum board in accordance with methods described in ASTM C840 and GA-216.
- Examine and inspect framing materials to which gypsum board is to be applied. Remedy all defects prior to installation of the gypsum board.
- GridMarX provides quick identification and uniform nail/screw patterns. Use GridMarX to make accurate cuts without drawing lines. GridMarX guide marks run the length of the board at five points in 4 in. (102 mm) increments. Marks run along the edge in both tapers and at 16 in. (406 mm), 24 in. (610 mm) and 32 in. (813 mm) in the field of the board. The marks cover easily with no bleed-through using standard paint products.
- Apply gypsum board first to ceilings at right angles to framing members, then to walls. Use boards of maximum practical length so that the minimum number of end joints occur. Bring board edges into contact with each other but do not force into place.
- Install batt or blanket ceiling insulation before the gypsum board on ceilings when installing a vapor retarder behind the gypsum board. Install the insulation immediately after the gypsum board when using loose fill insulation. Avoid installation practices that might allow condensation to form behind boards.
- Cut gypsum board to allow for a minimum 1/4 in. (6.4 mm) gap between gypsum board and floor to prevent potential wicking of moisture.
- Provide minimum 1/4 in. (6.4 mm) clearance between boards and adjacent concrete or masonry to minimize wicking of moisture.
- Locate gypsum board joints at openings so that no joint will align within 12 in. (305 mm) of the edges of the opening unless installing control joints at these locations. Stagger vertical end joints. Joints on opposite sides of a partition should not occur on the same stud.
- Hold gypsum board in firm contact with the framing member while driving fasteners. Fastening should proceed from center portion of the board toward the edges and ends. Set fasteners with heads slightly below the surface of the board. Take care to avoid breaking the face paper of the gypsum board. Remove improperly driven nails or screws.

(Continued on page 3)

Job Name _____

Contractor _____ Date _____

Submittal Approvals: (Stamps or Signatures)



Gold Bond® XP® Gypsum Board

TECHNICAL DATA

Physical Properties	1/2" XP	1/2" XP Fire-Shield C	5/8" XP Fire-Shield	5/8" XP Fire-Shield C
Thickness¹, Nominal	1/2" (12.7 mm)	1/2" (12.7 mm)	5/8" (15.9 mm)	5/8" (15.9 mm)
Width¹, Nominal	4' (1,219 mm) 54" (1,375 mm)	4' (1,219 mm)	4' (1,219 mm) 54" (1,375 mm)	4' (1,219 mm)
Length^{1,4}, Standard	8' – 12' (2,438 mm – 3,658 mm)	8' – 12' (2,438 mm – 3,658 mm)	8' – 12' (2,438 mm – 3,658 mm)	8' – 12' (2,438 mm – 3,658 mm)
Weight, Nominal	1.5-1.6 lbs./sq. ft. (7.32-7.81 k/m ²)	1.9 lbs./sq. ft. (9.28 k/m ²)	2.2 lbs./sq. ft. (10.74 k/m ²)	2.3 lbs./sq. ft. (11.23 k/m ²)
Edges¹	Tapered or Square	Tapered or Square	Tapered or Square	Tapered or Square
Flexural Strength¹, Perpendicular	≥ 107 lbf. (476 N)	≥ 107 lbf. (476 N)	≥ 147 lbf. (654 N)	≥ 147 lbf. (654 N)
Flexural Strength¹, Parallel	≥ 36 lbf. (160 N)	≥ 36 lbf. (160 N)	≥ 46 lbf. (205 N)	≥ 46 lbf. (205 N)
Humidified Deflection¹	≤ 10/8" (31.8 mm)	≤ 10/8" (31.8 mm)	≤ 5/8" (15.9 mm)	≤ 5/8" (15.9 mm)
Nail Pull Resistance¹	≥ 77 lbf. (343 N)	≥ 77 lbf. (343 N)	≥ 87 lbf. (387 N)	≥ 87 lbf. (387 N)
Hardness¹ – Core, Edges and Ends	≥ 11 lbf. (49 N)	≥ 11 lbf. (49 N)	≥ 11 lbf. (49 N)	≥ 11 lbf. (49 N)
Bending Radius	10' (3,048 mm)	10' (3,048 mm)	15' (4,572 mm)	15' (4,572 mm)
Thermal Resistance⁵	R = .45	R = .45	R = .56	R = .56
Permeance⁶	37 perms	37 perms	37 perms	37 perms
Water Absorption¹ (% of Weight)	≤ 5%	≤ 5%	≤ 5%	≤ 5%
Mold Resistance⁶, ASTM D3273	Score of 10	Score of 10	Score of 10	Score of 10
Mold Resistance⁸, ASTM G21	Score of 0	Score of 0	Score of 0	Score of 0
Product Standard Compliance	ASTM C1396	ASTM C1396	ASTM C1396	ASTM C1396
Fire-Resistance Characteristics				
Core Type	Regular	Type C	Type X	Type C
UL Type Designation	N/A	FSMR-C	FSW	FSW-C
Combustibility²	Non-Combustible	Non-Combustible	Non-Combustible	Non-Combustible
Surface Burning Characteristics³	Class A	Class A	Class A	Class A
Flame Spread³	0	0	0	0
Smoke Development³	0	0	0	0
Applicable Standards and References				
ASTM C473 Standard Test Methods for Physical Testing of Gypsum Panel Products				
ASTM C518 Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus				
ASTM C840 Standard Specification for Application and Finishing of Gypsum Board				
ASTM C1396 Standard Specification for Gypsum Board				
ASTM D3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber				
ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials				
ASTM E96 Standard Test Methods for Water Vapor Transmission of Materials				
ASTM E119 Standard Test Methods for Fire Tests of Building Construction and Materials				
ASTM E136 Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C				
ASTM G21 Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi				
Gypsum Association, GA-214, <i>Recommended Levels of Finish for Gypsum Board, Glass Mat and Fiber-Reinforced Gypsum Panels</i>				
Gypsum Association, GA-216, <i>Application and Finishing of Gypsum Panel Products</i>				
Gypsum Association, GA-238, <i>Guidelines for Prevention of Mold Growth on Gypsum Board</i>				
Gold Bond Building Products, LLC Manufacturer Standards, <i>NGC Construction Guide</i>				

1. Specified values per ASTM C1396, tested in accordance with ASTM C473.
2. Tested in accordance with ASTM E136.
3. Tested in accordance with ASTM E84.
4. Please consult your local sales representative for all non-standard lengths and widths. Minimum order requirements may apply.
5. Tested in accordance with ASTM C518.
6. Tested in accordance with ASTM E96.
7. Tested in accordance with ASTM D3273 and rated in accordance with ASTM D3274.
8. Tested in accordance with ASTM G21.



Gold Bond® XP® Gypsum Board

• (Continued from page 1)

- Maintain a room temperature of not less than 40°F (4°C) during application of gypsum board.
- Maintain a room temperature of not less than 50°F (10°C) when using adhesive to attach gypsum board and during joint treatment, texturing and decoration, beginning 48 hours prior to application and continuously thereafter until completely dry. Maintain adequate ventilation in the working area during installation and curing period.
- Double nailing is an alternate method of attachment devised to minimize nail pops. This system requires doubling up on the field nails. The total quantity of nails used does not double, however, since maximum nail spacing is increased to 12 in. (305 mm) o.c. and conventional nailing is used on the perimeter. Application is accomplished by first single nailing the field of the board, starting at the center and working toward ends and edges. Another nail is then driven in close proximity (2 in. [50.8 mm] to 2-1/2 in. [63.6 mm]) to each of the first nails. The first series of nails are then struck again to ensure the board is drawn tightly to the framing member.
- When using adhesive to attach gypsum board, apply drywall adhesive to the face of studs or joists in continuous beads. Reference ASTM C840 Section 10.

Finishing

Refer to GA-214, *Recommended Levels of Finish for Gypsum Board, Glass Mat and Fiber-Reinforced Gypsum Panels*, to determine the level of finishing needed to assure a surface properly prepared to accept the desired decoration.

Decoration

Ensure gypsum board surfaces, including finished joints, are clean, dust-free and gloss-free to achieve best painting results. Apply a coat of a quality drywall primer to equalize the porosities between surface paper and joint compound, improving fastener and joint concealment.

Selection of a paint to provide desired finish characteristics is the responsibility of the architect or contractor.

Prepare and prime gypsum boards prior to texturing.

Refer to GA-214 to determine the level of finishing needed to assure a surface properly prepared to accept the desired decoration.

Critical Lighting Areas

Wall and ceiling areas abutting window mullions or skylights, long hallways, and atriums with large surface areas washed with artificial or natural lighting are a few examples of critical lighting areas.

Strong side lighting from windows or surface-mounted light fixtures may reveal minor surface imperfections. Light striking the surface obliquely, at a slight angle, exaggerates surface irregularities. If you cannot avoid critical lighting, minimize the effects by skim coating the gypsum board surfaces, by decorating the surface with medium to heavy textures, or by the use of draperies and blinds, which soften shadows. In general, paints with sheen levels other than flat, enamel paints and dark-toned paint finishes highlight surface defects; consider using textures to hide these minor visual imperfections. Finish boards to a Level 5 finish, as outlined in GA-214.

LIMITATIONS

- Avoid exposure to excessive or continuous moisture and extreme temperatures. Do not expose gypsum board to temperatures exceeding 125°F (52°C) for extended periods of time.
- Properly ventilate or condition attic spaces to remove moisture buildup above gypsum board ceilings. If required, install a vapor retarder in exterior ceilings behind gypsum board.
- Avoid installing gypsum board directly over insulation blankets with facer flanges placed continuously across the face of the framing members; recess insulation blankets and attach flanges to the sides of framing.
- Isolate gypsum board from contact with building structure in locations where structural movement may impose direct loads on gypsum board assemblies.
- Provide control joints spaced not more than 30 ft. (9,144 mm) where employing long continuous runs of walls, partitions or ceilings without perimeter relief.
- Avoid gypsum board joints within 12 in. (305 mm) of the corners of window or door frames unless installing control joints at these locations.
- In single-ply installation, all ends and edges of gypsum board should occur over framing members or other solid backing except where treated joints occur at right angles to framing or furring members.
- Apply 1/2 in. (12.7 mm) gypsum board ceilings to be decorated with water-based spray texture perpendicular to the framing spaced a maximum of 16 in. (406 mm) o.c.
- Space supporting framing for single-layer application of 1/2 in. (12.7 mm) gypsum board a maximum of 24 in. (610 mm) o.c.
- Do not use boards as a nailing base as they are nonstructural.
- Avoid using in areas subject to constant and/or excessive moisture and high humidity, such as gang showers, saunas, steam rooms or swimming pool enclosures.
- Avoid using as a backer board directly behind tile in tub and shower areas.
- Do not install or treat joints until building is properly enclosed.



Gold Bond® XP® Gypsum Board

FOR MORE INFORMATION

Architectural Specifications

Gold Bond Building Products CSI MasterFormat® 3-part guide specifications are downloadable as editable Microsoft® Word documents at: goldbondbuilding.com.

Latest Technical Information and Update

Visit goldbondbuilding.com or call National Gypsum Company Construction Services: 1-800-NATIONAL (628-4662).

Technical Information Información Técnica

1-800-NATIONAL®
1-800-628-4662

National Gypsum Company is the exclusive service provider for products manufactured by Gold Bond Building Products, LLC.

The Gold Bond family of products is manufactured by Gold Bond Building Products, LLC.



National Gypsum Company is the exclusive service provider for products manufactured by Gold Bond Building Products, LLC.

Gold Bond®
Building Products

Gold Bond Building Products, LLC
2001 Rexford Road
Charlotte, NC 28211
704.365.7300
goldbondbuilding.com