XP® Gypsum Board
Regular, Fire-Shield® Type X and Fire-Shield® Type C

Gold Bond® BRAND 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.

Use it on walls and ceilings where framing members are spaced up to 24 in. (610 mm). It is available with either a Regular, Fire-Shield® Type X or Fire-Shield® Type C gypsum core.

For speed of installation, GridMarX® guide marks are printed on the paper surface.

Sizes: 1/2 in. (12.7 mm) thick Regular and Type C Boards and 5/8 in. (15.9 mm) thick Type X or Type C Boards are available in 4 ft. (1,219 mm) widths and 8 ft. (2,438 mm) to 12 ft. (3,658 mm) lengths.

Finishing: Tapered or square edges allow joints to be reinforced with ProForm® BRAND Joint Tape and concealed with ProForm® BRAND Ready Mix Joint Compounds or ProForm® BRAND Quick Set™ Setting Compounds. For optimum mold performance, use ProForm® BRAND XP® All Purpose or ProForm® BRAND XP® Lite Joint Compound.
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.
- Features GridMarX® guide marks on the board to allow for faster and more accurate installation.
- 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: http://www.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.
## TECHNICAL DATA

### PHYSICAL PROPERTIES

<table>
<thead>
<tr>
<th></th>
<th>XP Gypsum Board</th>
<th>1/2” XP Fire-Shield C Gypsum Board</th>
<th>5/8” XP Fire-Shield C Gypsum Board</th>
<th>5/8” XP Fire-Shield C Gypsum Board</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Thickness</strong>, Nominal</td>
<td>1/2” (12.7 mm)</td>
<td>1/2” (12.7 mm)</td>
<td>5/8” (15.9 mm)</td>
<td>5/8” (15.9 mm)</td>
</tr>
<tr>
<td><strong>Width</strong>, Nominal</td>
<td>4’ (1,219 mm)</td>
<td>4’ (1,219 mm)</td>
<td>4’ (1,219 mm)</td>
<td>4’ (1,219 mm)</td>
</tr>
<tr>
<td><strong>Length</strong>¹, Standard</td>
<td>8’ – 12’ (2,438 mm – 3,658 mm)</td>
<td>8’ – 12’ (2,438 mm – 3,658 mm)</td>
<td>8’ – 12’ (2,438 mm – 3,658 mm)</td>
<td>8’ – 12’ (2,438 mm – 3,658 mm)</td>
</tr>
<tr>
<td><strong>Weight, Nominal</strong></td>
<td>1.5 –1.6 lbs. / sq. ft. (7.32 – 7.81 k/m²)</td>
<td>1.9 lbs. / sq. ft. (9.28 k/m²)</td>
<td>2.2 lbs. / sq. ft. (10.74 k/m²)</td>
<td>2.3 lbs. / sq. ft. (11.23 k/m²)</td>
</tr>
<tr>
<td><strong>Edges</strong>¹</td>
<td>Tapered or Square</td>
<td>Tapered or Square</td>
<td>Tapered or Square</td>
<td>Tapered or Square</td>
</tr>
<tr>
<td><strong>Flexural Strength</strong>, Perpendicular</td>
<td>≥ 107 lbf. (476 N)</td>
<td>≥ 107 lbf. (476 N)</td>
<td>≥ 147 lbf. (654 N)</td>
<td>≥ 147 lbf. (654 N)</td>
</tr>
<tr>
<td><strong>Flexural Strength</strong>, Parallel</td>
<td>≥ 36 lbf. (160 N)</td>
<td>≥ 36 lbf. (160 N)</td>
<td>≥ 46 lbf. (205 N)</td>
<td>≥ 46 lbf. (205 N)</td>
</tr>
<tr>
<td><strong>Humidified Deflection</strong>¹</td>
<td>≤ 10/8” (31.8 mm)</td>
<td>≤ 10/8” (31.8 mm)</td>
<td>≤ 5/8” (15.9 mm)</td>
<td>≤ 5/8” (15.9 mm)</td>
</tr>
<tr>
<td><strong>Nail Pull Resistance</strong>¹</td>
<td>≥ 77 lbf. (343 N)</td>
<td>≥ 77 lbf. (343 N)</td>
<td>≥ 87 lbf. (387 N)</td>
<td>≥ 87 lbf. (387 N)</td>
</tr>
<tr>
<td><strong>Hardness</strong> – Core, Edges and Ends</td>
<td>≥ 11 lbf. (49 N)</td>
<td>≥ 11 lbf. (49 N)</td>
<td>≥ 11 lbf. (49 N)</td>
<td>≥ 11 lbf. (49 N)</td>
</tr>
<tr>
<td><strong>Bending Radius</strong></td>
<td>10” (3,048 mm)</td>
<td>10” (3,048 mm)</td>
<td>15” (4,572 mm)</td>
<td>15” (4,572 mm)</td>
</tr>
<tr>
<td><strong>Thermal Resistance</strong>²</td>
<td>R = .45</td>
<td>R = .45</td>
<td>R = .56</td>
<td>R = .56</td>
</tr>
<tr>
<td><strong>Permeance</strong>³ (% of Weight)</td>
<td>&lt; 5%</td>
<td>&lt; 5%</td>
<td>&lt; 5%</td>
<td>&lt; 5%</td>
</tr>
<tr>
<td><strong>Mold Resistance</strong>, ASTM D3273</td>
<td>Score of 10</td>
<td>Score of 10</td>
<td>Score of 10</td>
<td>Score of 10</td>
</tr>
<tr>
<td><strong>Mold Resistance</strong>, ASTM G21</td>
<td>Score of 0</td>
<td>Score of 0</td>
<td>Score of 0</td>
<td>Score of 0</td>
</tr>
<tr>
<td><strong>Product Standard Compliance</strong></td>
<td>ASTM C1396</td>
<td>ASTM C1396</td>
<td>ASTM C1396</td>
<td>ASTM C1396</td>
</tr>
</tbody>
</table>

### Fire-Resistance Characteristics

<table>
<thead>
<tr>
<th>Core Type</th>
<th>Type C</th>
<th>Type X</th>
<th>Type C</th>
</tr>
</thead>
<tbody>
<tr>
<td>UL Type Designation</td>
<td>N/A</td>
<td>FSMR-C</td>
<td>FSW</td>
</tr>
<tr>
<td>Combustibility</td>
<td>Non-combustible Core</td>
<td>Non-combustible Core</td>
<td>Non-combustible Core</td>
</tr>
<tr>
<td>Surface Burning Characteristics¹</td>
<td>Class A</td>
<td>Class A</td>
<td>Class A</td>
</tr>
<tr>
<td>Flame Spread¹</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Smoke Development²</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### Applicable Standards and References

- ASTM C840 Standard Specification for Application and Finishing of Gypsum Board
- ASTM C1396 Standard Specification for Gypsum Board
- ASTM E96 Standard Test Methods for Water Vapor Transmission of 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, Recommended Levels of Finish for Gypsum Board, Glass Mat and Fiber-Reinforced Gypsum Panels
- Gypsum Association, GA-216, Application and Finishing of Gypsum Panel Products
- Gypsum Association, GA-238, Guidelines for Prevention of Mold Growth on Gypsum Board

1. Specified values per ASTM C1396, tested in accordance with ASTM C473.
2. Tested in accordance with ASTM E316.
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.
8. Tested in accordance with ASTM G21.

National Gypsum Company, NGC Construction Guide
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.

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**

Joints between XP® Gypsum Board may be finished with either paper tape and ready mix joint compound or fiberglass mesh or paper tape and setting compound, such as ProForm® BRAND Interior Finishing Products.

**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 in pre-rock conditions.
- Do not finish joints until building is properly closed in and conditioned.
**STANDARD APPLICATION WITH NAILS – SINGLE LAYER**

**Installation Notes**

1/2" (12.7 mm) and 5/8" (15.9 mm) XP® Gypsum Board

- 24" o.c. maximum framing spacing
  - Ceiling application (perpendicular)
  - Wall application (perpendicular or parallel)

- 16" o.c. framing spacing
  - Ceiling application (perpendicular or parallel)
  - Wall application (perpendicular or parallel)

- Minimum gypsum board nail length 1-3/8"

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**FLOATING CEILING CORNER – NAIL INSTALLATION**

**System Components**

1. Ceiling Joist Framing
2. Gypsum Board
3. Wall Framing
4. Floating Interior Angles
5. Ceiling: 7" o.c.
6. Wall: 8" o.c.
**STANDARD APPLICATION WITH SCREWS – SINGLE LAYER**

![Diagram of standard application with screws – single layer](image1)

**Installation Notes**

1/2” (12.7 mm) and 5/8” (15.9 mm) XP® Gypsum Board

- 24” o.c. maximum framing spacing
  - Ceiling application (perpendicular)
  - Wall application (perpendicular or parallel)
  - Screw spacing not to exceed 12” o.c.

- 16” o.c. framing spacing
  - Ceiling application (perpendicular or parallel)
  - Wall application (perpendicular or parallel)

- Minimum gypsum board screw length 1-1/8”

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**FLOATING CEILING CORNER – SCREW INSTALLATION**

![Diagram of floating ceiling corner – screw installation](image2)

**System Components**

1. Ceiling Joist Framing
2. Gypsum Board
3. Wall Framing
4. Floating Interior Angles
5. Ceiling: 12” o.c.
6. Wall: 16” o.c.
   - Floating Ceiling: 12” o.c.
For More Information

ARCHITECTURAL SPECIFICATIONS

National Gypsum Company’s CSI MasterFormat® 3-part guide specifications are downloadable as editable Microsoft® Word documents at: nationalgypsum.com.

LATEST INFORMATION AND UPDATES

For the latest technical information and updates, call NGC Construction Services: 1-800-NATIONAL (628-4662) or visit our website: nationalgypsum.com.