

**HIGH STRENGTH FIRE-SHIELD 60™
GYPSUM BOARD**

Description

Gold Bond® BRAND High Strength Fire-Shield 60™ Gypsum Board consists of a fire-resistant gypsum core with a heavy, natural finish and 100-percent recycled paper on the face and back sides. It is formulated to be 20 percent lighter than standard Type X Gypsum Board. The face paper is folded around the long edges to reinforce and protect the core.

Use it for interior, fire-rated wall and ceiling applications. High Strength Fire-Shield 60 features a Type X fire-resistive core for use in laboratory tested, fire-rated assemblies.

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

Basic Uses

APPLICATIONS

Use 5/8 in. (15.9 mm) High Strength Fire-Shield 60 Gypsum Board for walls and ceilings in fire-rated construction where the framing members are spaced up to 24 in. (610 mm) o.c.

ADVANTAGES

- Approved component in specific UL-rated designs.
- 20 percent lighter than standard 5/8 in. (15.9 mm) Type X Gypsum Board, which results in easier handling.
- Cuts easily for quick installation, permitting painting or other decoration and the installation of metal or wood trim almost immediately.
- Excellent working properties, including score and snap, reduced dust and improved strength-to-weight ratio.
- 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.
- Dimensionally stable under changes in temperature and relative humidity and resists warping, rippling, buckling and sagging.
- 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 the GridMarX preprinted fastening guide 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 when installing a polyethylene vapor barrier on ceilings 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.
- Locate gypsum board joints at openings so that no joint will occur 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)

PHYSICAL PROPERTIES	
5/8" Gold Bond High Strength Fire-Shield 60™ Gypsum Board	
Thickness¹, Nominal	5/8" (15.9 mm)
Width¹, Nominal	4' (1,219 mm), 54" (1,372 mm)
Length^{1,4}, Standard	8' – 12' (2,438 – 3,658 mm)
Weight, Nominal	1.7 lbs./sq. ft. (8.3 k/m ²)
Edges¹	Tapered or Square
Flexural Strength¹, Perpendicular	≥ 147 lbf. (654 N)
Flexural Strength¹, Parallel	≥ 46 lbf. (205 N)
Humidified Deflection¹	≥ 5/8" (15.9 mm)
Nail Pull Resistance¹	≥ 87 lbf. (387 N)
Hardness¹ – Core, Edges and Ends	≥ 11 lbf. (49 N)
Bending Radius	15' (4,572 mm)
Thermal Resistance⁵	R = .56
Product Standard Compliance	ASTM C 1396
Fire-Resistance Characteristics	
Core Type	Type X
UL Type Designation	FSLX
Combustibility²	Non-combustible Core
Surface Burning Characteristics³	Class A
Flame Spread³	15
Smoke Development³	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 E84 Standard Test Method for Surface Burning Characteristics of Building Materials	
ASTM E136 Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C	
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	
National Gypsum Company, NGC Construction Guide	

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.

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(Continued from page 1)

- Provide minimum 1/4 in. (6.4 mm) clearance between boards and adjacent concrete or masonry to minimize wicking of moisture.
- 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 the 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.

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 gypsum board 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.

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 the use of textures to hide these minor visual imperfections.

Limitations

- Avoid exposure to 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 no 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.
- UL Type FSLX requires the use fiberglass insulation for single-layer, steel stud UL fire-rated wall assemblies.
- To prevent objectionable sag in gypsum paneled ceilings, the weight of overlaid unsupported insulation should not exceed the following recommendations:

CEILING-SUPPORTED INSULATION	
Thickness, Nominal	5/8" (15.9 mm)
Framing Spacing	24" (610 mm) o.c.
Weight of Ceiling – Supported Insulation	2.2 psf (10.7 kg/m ²)

For More Information

ARCHITECTURAL SPECIFICATIONS

National Gypsum Company's CSI Master Format® 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.



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