

Gold Bond[®] BRAND Gypsum Sheathing



06 16 43

National 
Gypsum[®]

GOLD BOND BRAND GYPSUM SHEATHING

DESCRIPTION

Gold Bond Brand Gypsum Sheathing is a water resistant board product designed for attachment to the outside of exterior wall framing as a water resistant underlayment for various exterior siding materials. The sheathing is manufactured with a treated water resistant core faced with water repellent paper on both face and back surfaces and on both long edges. Fire-Shield (type X) Jumbo Sheathing has special additives in the core to enhance its fire resistive properties.

USES

1. As a sheathing for wood framed residential construction to provide fire resistance, weather protection and to add to structural strength when used under exterior finishes such as vinyl siding, clapboard, paneling, masonry veneer, stucco and shingles.
2. As a sheathing for steel stud commercial construction

and as a component in curtainwall systems and exterior insulation systems and finishes.

3. As a sheathing for use in fire-rated exterior wall assemblies.

ADVANTAGES

1. **Economical:** Both material and application costs are low.
2. **Fire Resistance:** The non-combustible gypsum core of the sheathing helps protect framing elements even when the siding or finish material is combustible.
3. **Weather Protection:** Gypsum Sheathing's moisture resistant core and water repellent surfaces provide a barrier that resists passage of wind and water.**
4. **Little or No Sawing:** Gypsum Sheathing can be scored and snapped to exact size without cutting or sawing.

TECHNICAL DATA

SIZES AND TYPES

- 1/2" x 2' x 8' (Regular) tongue and groove edge.
- 1/2" x 4' x 8', 9', 10' (Jumbo) square edge.
- 5/8" x 4' x 8', 9', 10' (Fire-Shield Jumbo) square edge.

VAPOR PERMEABLE

Gypsum Sheathing typically has an average vapor permeance of 20 perms (dry cup method) which allows the escape of normal interior created water vapor.

SURFACE BURNING CHARACTERISTICS: (FIRE HAZARD CLASSIFICATION)

Both regular (2' x 8') and Jumbo (4' x 8', 9', 10') have a flame spread of 20 when tested under ASTM E 84. Source: Factory Mutual Report No. 16738.102.

FIRE-RESISTANCE RATINGS

A one-hour fire rating can be achieved for a wood framed wall when constructed per UL Design U305 consisting of nominal 2 x 4 wood studs 16" o.c. faced on the outside with 5/8" Fire-Shield Gypsum Sheathing and on the inside with 5/8" Fire-Shield Gypsum Wallboard.

A two-hour fire rating may be obtained per UL Design U302 with 2 x 4 wood studs 16" o.c. with two layers of 5/8" Fire-Shield Gypsum Wallboard applied to the interior side and 1/2" regular Gypsum Sheathing, 24" wide sheets, T and G edges, faced with brick veneer on the exterior side.

One and two hour fire ratings may be obtained for a steel framed wall when constructed per UL Designs U 418 and U 425.

STRUCTURAL

Racking tests have been conducted for the Gypsum Association by an independent laboratory according to ASTM E 72. Average ultimate racking load values were as follows:

SHEAR LOAD IN LBS. PER LINEAR FT. (KILOGRAMS PER METER)

	Dry	Wet*
1/2" x 4' (12.7 mm x 1219 mm) wide sheathing	540 (803)	332 (494)
5/8" x 4' (15.9 mm x 1219 mm) wide type X	654 (973)	522 (777)

*Treated core only

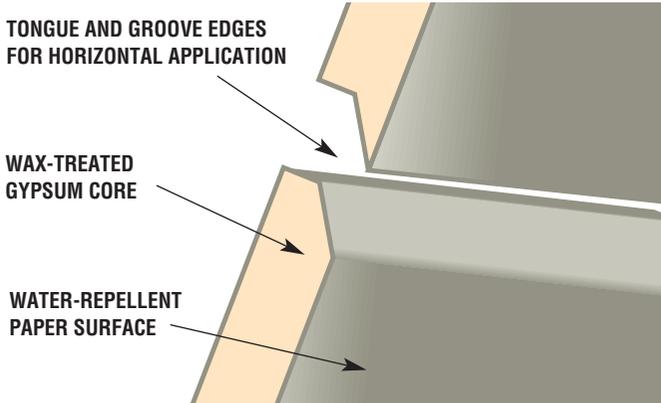
Studs spaced 16" o.c., fasteners galvanized 11 gauge nails 7/16" head, 1 1/2" long for 1/2" sheathing and 1 3/4" long for 5/8", 7" o.c. in the field and 4" o.c. on edges and ends for 5/8" gypsum sheathing; 8" o.c. in field and 4" o.c. on edges and ends for 1/2" gypsum sheathing.

Corner Bracing – Where continuous diagonal bracing is required, many building codes allow the use of 4' wide boards of 1/2" gypsum sheathing applied vertically to be used in place of 1" by 4" wood let-in bracing.

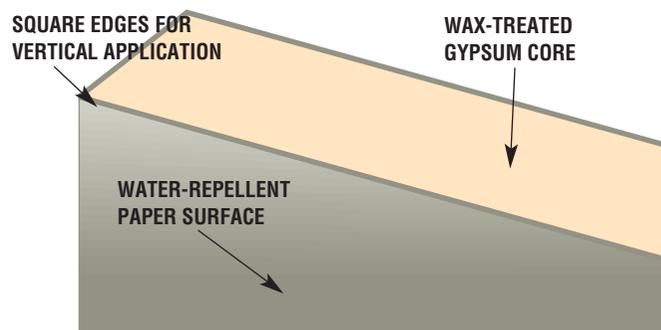
Shear Walls – Where wind or seismic forces require shear walls to resist these lateral forces, most building codes provide allowable shear values for walls having gypsum sheathing applied vertically to wood framing. Specific values with construction requirements and limitations are contained in the major model building codes (International Building Code, National Building Code, Standard Building Code and Uniform Building Code).

SPECIFICATION COMPLIANCE

Gold Bond Gypsum Sheathing is manufactured to comply with ASTM Specification C 79/C 1396.



2' X 8' GYPSUM SHEATHING



4' X 8' JUMBO GYPSUM SHEATHING

Illustration colors for visualization purposes only.

** Refer to Limitations, page 29, number 10.

LIMITATIONS

1. Gypsum Sheathing is not a finished surface nor is it a substrate for the direct application of stucco, paint or textures. Placement of vapor retarders is the responsibility of the design professional.
2. The sheathing shall not be used as a nailing base.
3. Exterior Insulation Finish Systems (EIFS): Exterior Insulation Finish Systems incorporating Gypsum Sheathing should be used with mechanical fasteners. The performance of these systems and recommendation of the proper method of attachment are the sole responsibility of the EIFS manufacturer.
4. Application of Gypsum Sheathing to framing by adhesive only is not recommended.
5. Stud spacing must not exceed 24" o.c.
6. Gypsum Sheathing is not recommended for application to exterior ceilings, soffits or sills.
7. Gypsum Sheathing should be spaced not less than 1/4" from abutting masonry to minimize wicking.
8. Neatly stack Gypsum Sheathing flat, taking care to prevent sagging or damage to the ends, edges and surfaces.
9. Gypsum Sheathing may be stored outside for up to one month if stacked off the ground under protective covering.
10. Gypsum Sheathing is designed for use as a substrate that is covered by an exterior cladding or other weather resistive barrier and is not intended for long term exposure. After it has been installed, it shall not be exposed to the elements for more than 30 days. The gypsum sheathing shall be covered with building felt or equivalent within 30 days after installation if exposure time will be more than 30 days.

SPECIFICATIONS

**SECTION 06 16 43
GYPSUM SHEATHING**

THE FOLLOWING PARAGRAPHS ARE FOR INSERTION INTO SECTIONS OF GENERIC SPECIFICATIONS OR GENERIC/PROPRIETARY SPECIFICATIONS COVERING GYPSUM WALLBOARD PRODUCTS. THE GOLD BOND PRODUCT NAME FOLLOWS THE GENERIC DESCRIPTION IN PARENTHESES.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Gypsum Sheathing Board: A gypsum core sheathing boards with additives to enhance the water resistance of the core; surfaced with water repellent paper on front, back, and long edges; and complying with ASTM C 79/C 1396.
1. **Regular Board**, 1/2" x 2' x 8' with tongue and groove edge (Gold Bond BRAND Gypsum Sheathing).
 2. **Regular Board**, 1/2" x 4' x 8', 9', 10' with square edge (Gold Bond BRAND Jumbo Gypsum Sheathing).
 3. **Fire-Resistant Board** (type X), 5/8" x 4' x 8', 9', 10' with additives in the core to enhance fire resistance (Gold Bond BRAND Fire-Shield Jumbo Gypsum Sheathing).

PART 3 EXECUTION

3.01 INSTALLATION

- A. Gypsum Sheathing: In accordance with ASTM C 1280 and the manufacturer's recommendations, National Gypsum Company "Gypsum Construction Guide."

RECOMMENDATIONS

Fasteners (nail or screw heads or the crown of staples) shall bear tightly against the face of the sheathing but should not cut into the face paper. Staples shall be driven with the crown parallel to the framing. Fasteners shall be no less than 3/8" from the edges and ends of the sheathing. When shear values are not required, fasteners shall be spaced not more than 8" o.c. along the vertical ends or edges and intermediate supports.

REGULAR GYPSUM SHEATHING – 2' WIDE

Apply 2' wide sheathing horizontally with the long dimension at right angles to the framing with grooved edges down, interlocking the tongue of previously installed boards with all edges butted but not forced into place. Stagger all vertical joints and abutt them over the centers of framing members. Fit sheathing snugly around all openings. Secure sheathing to studs with nails or screws spaced not over 4" o.c. along ends and 8" o.c. to intermediate framing (staples 3" and 6" respectively).

JUMBO GYPSUM SHEATHING – 4' WIDE

Apply Jumbo Gypsum Sheathing vertically with vertical edges butting over the center of framing members. Fit sheathing snugly around all openings. Vertically attach sheathing with nails or screws spaced not over 4" o.c. around perimeter and 8" o.c. to intermediate studs (space staples not over 3" and 6" o.c. respectively). Jumbo Gypsum Sheathing is permitted to be applied horizontally. Secure horizontally applied sheathing to studs with nails or screws spaced not over 4" o.c. along ends and 8" o.c. to intermediate framing. Square edge gypsum sheathing applied perpendicular to framing shall be covered with building felt or equivalent or horizontal joints shall be sealed at time of application. Horizontal gypsum sheathing joints do not require back blocking.

TOTAL WALL THICKNESS

Door and window frames for outside wall openings should be ordered according to total wall thickness. For ease of installation it is recommended that window frames be selected with blind stops the same thickness as the sheathing.

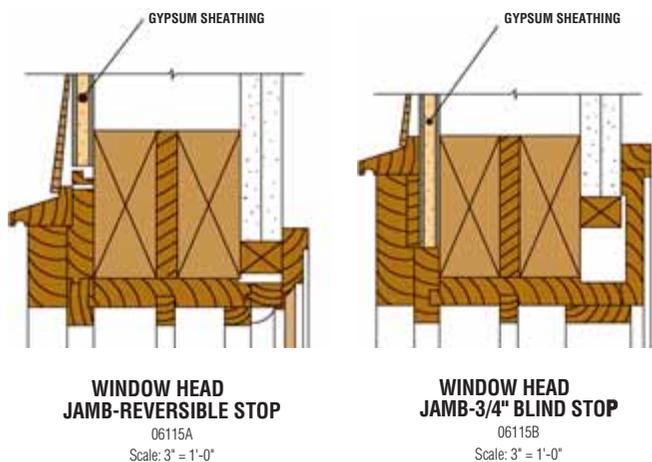
REVERSIBLE STOPS

Window frames with reversible stops can accommodate 1/2" sheathing. Detail 06115 A.

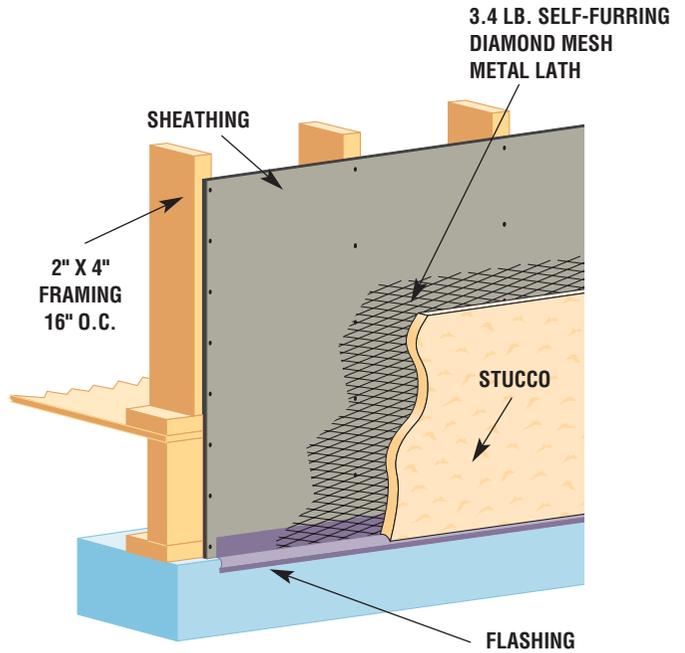
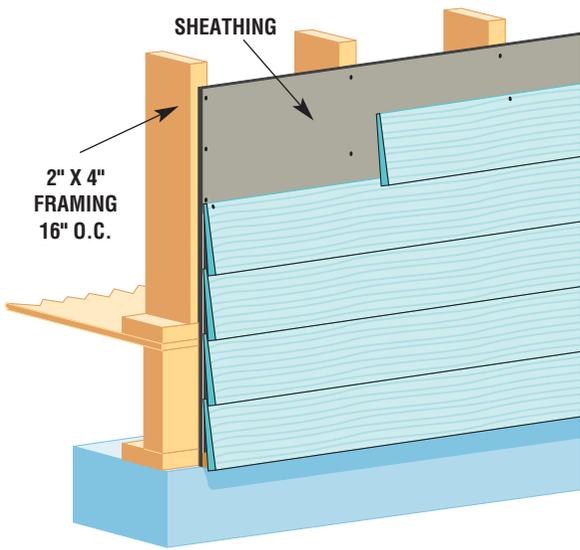
3/4" BLIND STOPS

For use of fixed 3/4" blind stops with 1/2" sheathing, insert 1/4" shim between sheathing and trim. Detail 06115 B.

DETAILS



INSTALLATION

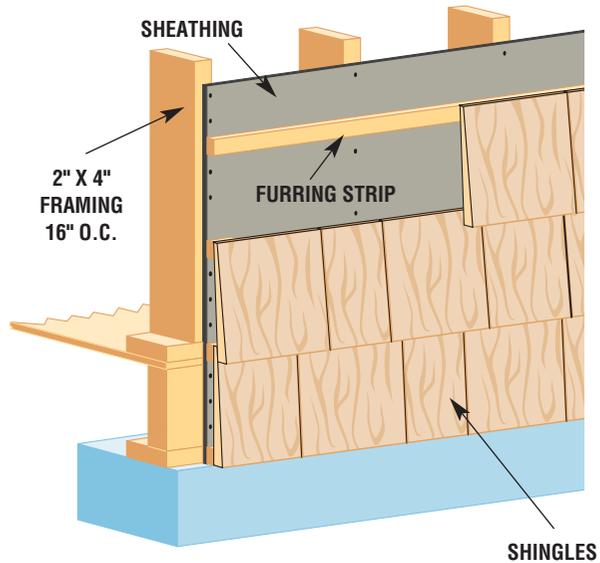
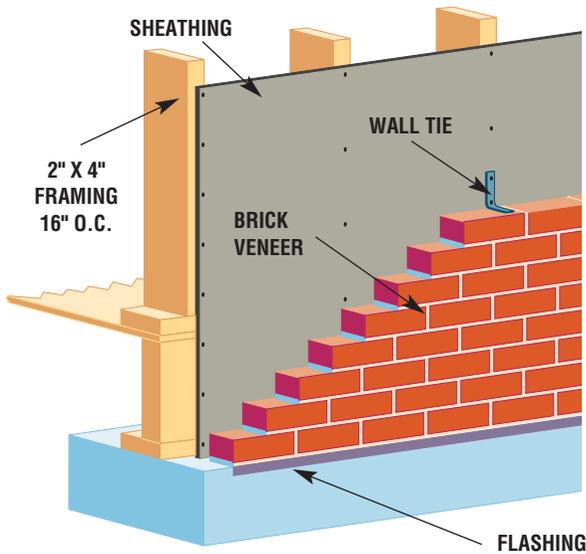


VINYL, WOOD, CLAPBOARD SIDING

Apply horizontal siding directly over the sheathing. Fasteners should have a 1" penetration into each framing member. Butt siding joints over framing members.

STUCCO

Nail 3.4 lb. Self-furring Galvanized Diamond Mesh metal lath through the sheathing into the framing.



BRICK VENEER

Wall ties for masonry veneer should be nailed through the sheathing with nails that penetrate a minimum of 1" into the framing. Leave an air space of 2" between sheathing and veneer.*

SHINGLES OR SHAKES

Apply 1 x 2 wood furring strips horizontally over the Gypsum Sheathing, spaced to correspond to the shingle exposure, using nails of sufficient length to provide at least 1" penetration into the studs. Nail furring through the sheathing into the framing with a minimum of one nail at each intersection of stud and furring.

*Brick Institute of America

Note: Refer to exterior cladding manufacturer and local codes to determine if a weather resistive barrier is required over gypsum sheathing.



For additional information
Phone 1-800-NATIONAL
(1-800-628-4662)