



American Gypsum
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Technical Information
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EXTERIOR GYPSUM SHEATHING

DESCRIPTION

Exterior Gypsum Sheathing is a water-resistant product designed for attachment to exterior side-wall framing as an underlayment for various exterior siding materials such as wood, metal or vinyl siding, masonry veneer, stucco, shingles, etc. The panel is manufactured with a wax-treated, water-resistant core faced with water-repellent paper on both face and back surfaces and long edges.

Exterior Gypsum Sheathing is available in a 1/2" & 5/8" thick, 4' wide square edge product. 5/8" Exterior Gypsum Sheathing has a Type X core, for use in fire rated assemblies.

American Gypsum products contain no asbestos and no detectable levels of formaldehyde.

BASIC USES

Exterior Gypsum Sheathing is recommended for use in residential or commercial buildings and provides fire resistance and additional structural strength when used under exterior finishes such as wood, metal or vinyl siding, masonry veneer, stucco, shingles, etc. Exterior Gypsum Sheathing is designed for direct attachment to wood or metal framing with approved fasteners. Exposed joints are not intended for finishing with drywall joint compound and tape.

LIMITATIONS

The surface or face of Exterior Gypsum Sheathing is not designed to be finished similar to traditional wallboard nor is it a substrate for the direct application of stucco, paint or textures.

Exterior Gypsum Sheathing should not be used as a nailing base. Application of Exterior Gypsum Sheathing to framing by adhesive only is not recommended. Stud spacing must not exceed 24"o/c.

Exterior Insulation and Finish Systems (EIFS) that incorporate Exterior Gypsum Sheathing are used with either mechanical fasteners or adhesives, depending on the EIFS manufactures recommendations. The performance of EIFS and recommendations for the proper method of attachment are the sole responsibility of the EIFS manufacturer, specifier and or applicator.

Exterior Gypsum Sheathing is not recommended for application to exterior ceilings, soffits or sills.

Exterior Gypsum Sheathing may be stored outside for up to one month, but must be stored off the ground and shall be sheltered from the elements with a protective covering. Sufficient risers must be used to assure support for the entire length of the wallboard to prevent sagging.

Once applied to a structure, Exterior Gypsum Sheathing must not be left exposed to the elements for more than one month. After one month the sheathing must be covered with a weather-resistant barrier (#15 felt or equivalent). The weather-resistant barrier (#15 felt or equivalent) should be applied horizontally with a minimum 2' overlap and immediately anchored with metal lath, masonry ties or corrosion-resistant screws, nails or staples.

Exterior Gypsum Sheathing typically has an average vapor permeance of 20 perms (dry cup method) which allows the passage of water vapor in both directions.

STORAGE AND HANDLING

Exterior Gypsum Sheathing board does not generate or support the growth of mold when it is properly transported, stored, handled, installed, and maintained. However, mold spores are present everywhere and when conditions are favorable; mold can grow on practically any surface.

Where necessary, Exterior Gypsum Sheathing may be stored outside for up to one month, but must be stored off the ground and shall be sheltered from the elements with a protective covering. Sufficient risers must be used to assure support for the entire length of the wallboard to prevent sagging.

Gypsum board must be protected during transit with a weather-tight cover in good condition. Plastic shipping bags are intended to provide protection during transit only and must be promptly removed upon arrival of the load. Failure to remove the shipping bag can increase the likelihood of developing conditions favorable to the growth of mold.

Exterior Gypsum Sheathing that has visible mold growth must not be used. For additional information refer to Gypsum Association publication, "Guidelines for the Prevention of Mold Growth on Gypsum Wallboard" (GA-238).

Gypsum board shall always be stacked flat - NEVER on edge or end. Gypsum board stacked on edge or end is unstable and presents a serious hazard should it accidentally topple. Gypsum board should be placed so weight is evenly distributed and the floor is not overloaded.

GOOD BUILDING PRACTICES

Installation - The installation of Exterior Gypsum Sheathing should be consistent with methods described in the applicable standards noted below.

The design professional has the ultimate responsibility for location of control joints.

4' wide (1219mm) Exterior Gypsum Sheathing: Apply 4' wide sheathing vertically with vertical edges butting over the center of framing members. Fit sheathing snugly around all openings. Attach sheathing with nails or screws spaced not more than 4"o/c along ends and edges and 8"o/c in the field (staples 3" and 6" respectively). Horizontally applied square edge Exterior Gypsum Sheathing shall be covered with a weather-resistant barrier (#15 felt or equivalent), or horizontal joints sealed at time of application. Horizontal sheathing joints do not require back blocking.

Where shear values are not required, Exterior Gypsum Sheathing 4' (1219mm) wide shall be permitted to be applied parallel or perpendicular to framing. Exterior Gypsum Sheathing applied perpendicular (horizontal) to framing shall be covered with a weather-resistant barrier (#15 felt or equivalent), or horizontal joints shall be sealed at time of application.

Fasteners

Nails - shall be not less than 12 gauge, galvanized, with a minimum 7/16" (11mm) diameter head.

Staples - shall be galvanized steel, not less than 16 gauge and with a minimum 7/16" (11mm) crown.

Screws - standard specification for steel drill screws for the application of gypsum wallboard (ASTM C1002). Type W screws are designed for attachment to wood framing, and Type S screws are designed for attachment to light gage steel framing or wood framing.

Minimum Fastener Lengths For The Attachment Of Exterior Gypsum Sheathing				
SHEATHING THICKNESS	WOOD FRAMING			STEEL FRAMING
	Nails	Staples	Screws	Screws
1/2"	1 1/2"	1 1/2"	1 1/4"	1"
5/8"	1 3/4"	1 5/8"	1 5/8"	1 1/4"

Fasteners should bear tightly against the face of the sheathing, but should not cut into the face paper. Staples should be driven with the crown parallel to the framing. Fasteners should be no less than 3/8" from the edges and ends of the sheathing.

Shear Values - Shear values for wind or seismic forces based on racking test conducted in accordance with ASTM E 72 on 4' (1219mm) wide Exterior Gypsum Sheathing applied parallel to framing.

Sheathing Thickness	Shear Value Ultimate Load lbs/ft	
	DRY	WET
1/2"	540	332
5/8"	654	522

Where wind or seismic forces require shear walls to resist these lateral forces, most building codes provide allowable shear values for walls having Exterior Gypsum Sheathing applied to wood framing.

Decoration - Not recommended

APPLICABLE STANDARDS	Manufacturing	ASTM C 1396 section 9 (C 79) Federal Specification SS-L-30D Type II (1/2") Federal Specification SS-L-30D Type II Grade X (5/8")
	Installation	ASTM C 1280 Gypsum Association GA-253 Gypsum Association GA-254 Gypsum Association GA-276
	Surface Burning Characteristics	ASTM E 84 Flame Spread 0 Smoke Developed 0

PRODUCT DATA	SIZES			
	Thickness	Widths	Lengths	Edge Type
	1/2" (12.7mm)	4' (1219mm)	8' - 12' (2438mm - 3658mm)	Square Edge
	5/8" (15.9)	4' (1219mm)	8' - 12' (2438mm - 3658mm)	Square Edge
				AGX-1, AGX-11

Special lengths or edges may be available on special order. Consult your American Gypsum sales representative for details.

Thermal Resistance "R" Value	Value
1/2"	0.50
5/8"	0.61

FIRE RESISTANCE RATINGS Desired fire rated assemblies are specified from tests performed by independent laboratories. These designs are made up of specific materials in a precise configuration. When choosing construction designs to meet certain fire resistance requirements, vigilance must be taken to insure that each component of the selected assembly is the one specified in the test and are assembled in accordance with the requirements of the assembly.

SUBMITTAL APPROVALS

Job Name: _____

Contractor: _____ Date: _____

EXTERIOR SHEATHING
 AMERICAN GYPSUM
 Made in the USA
 AMERICAN GYPSUM
 Panel de pared para exteriores