



Substitution Request 1/2" M-Glass® Exterior Gypsum Sheathing

Pre-Bid

After Bid

Project:

Substitution Request #:

From:

Date:

To:

A/E Project Number:

Contract For:

Specification Title:

Description:

Section:

Page:

Article/Paragraph:

Proposed Substitution: **1/2" M-Glass® Exterior Gypsum Sheathing**

Manufacturer: **American Gypsum Company, LLC** Phone: **(866) 439-5800**

Address: **3811 Turtle Creek Blvd, Ste 1200, Dallas TX, 75219**

Installer:

Address:

Phone:

Email:

History:

New Product

2-5 Years

5-10 Years

10+ Years

Differences between proposed substitution and specified product:

Reason for not providing specified item:

Similar Installation:

Project:

Architect:

Address:

Owner:

Date Installed:

Proposed substitution affects other parts of work:

No

Yes, Explain

Supporting Data Attached:

Drawings

Product Data

Samples

Tests

Reports

Other

The undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to the specified product.
 - The same warranty will be furnished for the proposed substitution as for the specified product.
 - The same maintenance service and source of replacement parts, as applicable, is available.
 - The proposed solution will have no adverse effect on other trades and will not affect or delay the progress schedule.
 - The proposed substitution does not affect dimensions and functional clearances.
 - Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.
-

Submitted By:

Signature:

Firm Name:

Address:

Phone:

Attachments:

A/E's Review and Action:

Substitution Approved – Make Submittals in accordance with Division 1 Section: Substitutions.

Substitution Approved as Noted – Make submittals in accordance with Division 1 Section:
Substitutions.

Substitution Rejected – Use specified materials.

Substitution Request Received Too Late – Use specified materials.

Signed By:

Date:

Additional Comments:

Contractor Subcontractor Supplier Manufacturer A/E Other

Upon Completion Return To:

Name:

Address:

Phone:

Fax:

Email:

Submittal 06 16 43



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Dallas, TX 75219
214-530-5500
www.americangypsum.com

Technical Information
1-800-545-6302 ext. 5607



EXTERIOR SHEATHING WITH MOLD & MOISTURE RESISTANCE

DESCRIPTION

With an enhanced mold and moisture resistant core encased by a fiberglass mat facer, M-Glass Exterior Sheathing is a high performance panel designed for direct attachment to exterior side-wall or soffit framing and as a underlayment for various exterior materials such as wood, metal or vinyl siding, properly detailed Exterior Insulation Finish Systems (EIFS), masonry veneer, stucco, shingles, etc. It is produced in 1/2" and 5/8" thicknesses with the 5/8" M-Glass Exterior Sheathing having a UL classified formulated Type X core for use in approved fire rated assemblies.

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

BASIC USES

American Gypsum's M-Glass Exterior Sheathing is manufactured to meet or exceed the requirements of ASTM C1177, and was developed for and is backed by a limited warranty for exposure up to 12 months under normal weather conditions on commercial and residential projects. M-Glass Exterior Sheathing provides mold, moisture and fire resistance protection when attached directly to exterior side-wall or soffit framing for use as a underlayment for finishes such as wood, metal or vinyl siding, properly detailed Exterior Insulation Finish Systems (EIFS), masonry veneer, stucco, shingles, etc.

MOLD & MOISTURE RESISTANCE

M-Glass Exterior Sheathing has been developed with enhanced mold and moisture resistant technology and, at an independent laboratory certified in accordance with ISO 17025-2005, has been tested to the industry's most rigorous standards. When tested per ASTM D 3273, M-Glass Exterior Sheathing scored a perfect 10, thus minimizing the risk of mold and mildew growth.

The use of M-Glass Exterior Sheathing in actual job site conditions may not produce the same mold and moisture resistant results as were achieved in a controlled laboratory setting. While no material can or should be considered mold proof, the use of good design and construction practices including avoiding water exposure during all phases of the project (i.e. - storage, handling, shipping, and installation) is the most effective strategy to manage the growth of mold and mildew.

LIMITATIONS

The surface or face of M-Glass Exterior 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.

M-Glass Exterior Sheathing should not be used as a nailing base, and the application to framing or any sub-straight by adhesive only is not recommended.

The spacing of framing members must not exceed 24"o/c.

The attachment and performance of Exterior Insulation Finish Systems (EIFS) that incorporate M-Glass Exterior Sheathing as its underlayment are the sole responsibility of the EIFS manufacturer, design professional and or applicator.

If M-Glass Exterior Sheathing is used in slanted wall applications, that area must be temporarily sheltered from the elements by a water resistant barrier prior to application of the final exterior finish. Additionally, exposed wall ends such as those that may be found in parapets must be covered to prevent water from infiltrating the cavity.

While M-Glass Exterior Sheathing offers additional resistance to weather, it is not intended for constant exposure to water. Protect this material from the eroding effects of cascading water, and do not allow standing water to remain on M-Glass Exterior Sheathing.

M-Glass Exterior Sheathing is not intended for tile applications, nor should these panels be laminated to masonry surfaces or framing members.

Requirements for the sealing of horizontal joints should always be verified with local code officials.

M-Glass Exterior Sheathing is not to be used for roofing applications.

M-Glass Exterior Sheathing is not a replacement for structurally engineered sheathings that may be required for shear resistance. (i.e. plywood, OSB, etc.)

The design professional or manufacturer of the specified exterior material has the ultimate responsibility for location of control joints.

M-Glass Exterior Sheathing shall be sheltered from the elements and maintained in good condition prior to installation. Panels shall be stacked flat with care taken to prevent sagging or damage to edges, ends and surfaces. Following its installation, the building/structure must be adequately maintained by the contractor and/or building owner.

Penetrations and cutouts for pipes, fixtures, etc. shall be properly protected by flashing or caulking as specified by the design professional or to meet requirements of the building code. All design details such as fasteners, sealants and control joints, per system specifications, must be properly installed and failure to do so will void the warranty offered by American Gypsum Company.

STORAGE AND HANDLING

M-Glass Exterior 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. The panels must be stored off the ground and in an area that offers protection from adverse weather conditions, condensation, and other forms of moisture. Sufficient risers must be used to assure support for the entire length of the wallboard to prevent sagging. M-Glass Exterior Sheathing shall always be stacked flat - NEVER on edge or end. Panels stacked on edge or end are unstable and present a serious hazard should it accidentally topple. Care must be taken so weight is evenly distributed and floors are not overloaded.

Material 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.

M-Glass Exterior 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).

GOOD BUILDING PRACTICES

M-Glass Exterior Sheathing must be installed in accordance with document GA-253 (Gypsum Association) and or ASTM C 1280. The panels can be attached vertical or horizontal to wood or metal framing members that shall not vary more than 1/8" from the plane of the faces of adjacent framing. M-Glass Exterior Sheathing ends and edges should fit snugly, with end joints staggered on horizontal applications.

Application* - Fasteners shall be placed not more than 8" o/c along vertical ends or edges and intermediate supports. (If used for shear/racking requirements, often the perimeter fasteners will be reduced to 4" o/c) *The design professional, owner or contractor shall refer to specific fire rated assemblies or shear wall applications for the proper orientation of the panels and fastening requirements as specified by the design.

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 - shall be bugle head, corrosion resistant meeting the requirements of 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 M-Glass Exterior 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 3/4"	1 1/4"	1 1/4"

Fasteners should be driven flush with the panel surface (not countersunk) and into the framing. 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 panel.

Decoration (for soffit/ceiling applications only) - If M-Glass Exterior Sheathing panels are installed in a soffit and or exterior ceiling application that is to be finished like traditional exterior soffit wallboard, the following must be followed:

Embed fiberglass mesh tape into fast setting joint compound over the joints, and flush out as needed. Once joint compound is dry, apply a skim coat fast setting joint compound over the entire surface to achieve a uniform and smooth finish. Prime the finished area with an exterior grade primer and then apply a minimum two coats of exterior grade paint in accordance with the paint manufactures instructions.

APPLICABLE STANDARDS

Physical Properties	1/2" M-Glass Exterior Sheathing	5/8" M-Glass Exterior Sheathing
Weight, lbs. / s/f (kg/m ²)	1.9 (9)	2.5 (12)
Racking strength, lbs. / ft. (dry) (N/m) (Ultimate, not design load)	540 (7878)	654 (9544)
Flexural strength, parallel, lbs. (N) 4' weak direction	80 (356)	100 (445)
Compressive strength	Min. 500 psi	Min. 500 psi
Humidified deflection	1/8" (3mm)	1/8" (3mm)
Bending radius	6' (1829mm)	8' (2438mm)
Non-combustible per ASTM E136	Yes	Yes
Surface burning characteristics	0/0	0/0
Flame spread/Smoke developed per ASTM E84		
Linear expansion with moisture change, in/in/%RH (mm/mm/%RH) [§]	6.25 x 10 ⁻⁶	6.25 x 10 ⁻⁶
Permeance, perms (ng/Pa •s •m ²)	26 (1500)	21 (1200)
Mold Resistance per ASTM D3273	10	10
Manufacturing	ASTM C1177	ASTM C1177
Installation	ASTM C1280 GA-253	ASTM C1280 GA-254

PRODUCT DATA

Thickness	Widths	Lengths	Weight	Edge Type	UL Type
1/2" (12.7mm)	4' (1219mm)	8' (2438mm)	1.9 lbs-sf	Square	N/A
5/8" (15.9mm)	4' (1219mm)	8' (2438mm)	2.5 lbs-sf	Square	M-Glass

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

Thermal Resistance "R" 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: