



US MGO COMPANY
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INNOVATION MgO™ WALL PANELS

CSI Sections:

- 06 00 00—Wood, Plastics, and Composite**
- 06 16 00—Sheathing**
- 09 28 15—Magnesium Oxide Backing Panels**

1.0 RECOGNITION

US MgO Company's INNOVATION MgO™ Wall Panels, described in this report, were evaluated for use as interior and exterior wall sheathing to resist transverse and in-plane shear loads. The strength, surface-burning, and physical properties were evaluated for compliance with the following codes:

- 2024, 2021, 2018, and 2015 International Building Code® (IBC)
- 2024, 2021, 2018, and 2015 International Residential Code® (IRC)
- 2023 Florida Building Code®, Building (FBC, Building) – Supplement attached
- 2023 Florida Building Code®, Residential (FBC, Residential) – Supplement attached

2.0 LIMITATIONS

Use of INNOVATION MgO™ Wall Panels described in this report is subject to the following limitations:

2.1 Support framing, including type and spacing for INNOVATION MgO™ Wall Panels shall comply with Tables 1 and 2 of this report, as applicable.

2.2 Metals and metal fasteners in direct contact with INNOVATION MgO™ Wall Panels shall be non-corrosive or corrosion-resistant. Table 3 of this report details the corrosive effects of metal types in contact with the INNOVATION MgO™ Wall Panels.

2.3 INNOVATION MgO™ Wall Panels are limited to installations that are within a weather-resistant exterior wall envelope.

2.4 Complete construction documents, including plans and calculations verifying compliance with this report, shall be submitted to the building official with the permit application for approval. The construction documents shall be prepared by a registered design professional, where required by the statutes of the jurisdiction in which the project is to be constructed.

2.5 The installation of wallpaper, paint and primer, and their compatibility with the MgO wall panels, is outside the scope of this report.

3.0 PRODUCT USE

3.1 General: INNOVATION MgO™ Wall Panels are used as sheathing panels in types of construction where combustible construction is allowed. Where a fire-resistance-rated assembly is required, the provisions in Section 3.2.3 of this report shall apply. The INNOVATION MgO™ Wall Panels resist horizontal in-plane and out-of-plane (wind and seismic) loads in buildings and other structures of light-frame construction.

The panels may also be used where an engineered design is submitted in accordance with Section R301.1.3 of the IRC.

3.2 Combustible Materials in Types I, II, III, and IV-HT Construction: The INNOVATION MgO™ Wall Panels may be used where combustible materials are permitted by the IBC.

3.2.1 Alternative to Fire-retardant-treated wood: The MgO wall panels may be used as an alternative to fire-retardant-treated wood structural wall panels as required by the applicable provisions of the IBC or IRC when installed within a weather-resistant exterior wall envelope. The MgO Panels have demonstrated through testing to meet extended ASTM E84 testing as detailed in Section 2303.2 of the IBC.

The panels may be used in Types I and II Construction when IBC Section 603.1 Item 1, Subsection 1.2 is met. The panels may be used in Type III construction where Section 602.3 of the IBC and Section 2.1 of this report are met. The panels may be used in Type IV-HT construction where Section 602.4.4.1 of the 2024 and 2021 IBC or Section 602.4.1 of the 2018 and 2015 IBC, and Section 3.2.3 of this report are met.

3.2.2 Combustible Material in Type I and II Construction. The INNOVATION MgO™ Wall Panels may be permitted for use in Type I and II construction as an allowable combustible material with application 20 of IBC Section 603.1, and when the fire-resistance requirements of IBC Section 703.2.1.2 and Section 3.2.3 of this report are met.

3.2.3 Fire-Resistance Construction. The INNOVATION MgO™ Wall Panels are permitted to be used as a component of a fire-resistance-rated assembly in accordance with IBC Section 703.2 or IRC Section R302.1, as applicable, when testing in accordance with ASTM E119 or UL 263 is submitted to and approved by the building official. Fire resistance may also be determined through alternative



methods as defined in 2024 and 2021 IBC Sections 703.2.2 and 703.2.3 or 2018 and 2015 IBC Section 703.3, as applicable.

Fire resistance based on testing in accordance with ASTM E119 or UL 263 may be established when the registered design professional specifies, and then the building official approves a fire-resistance-rated assembly with the INNOVATION MgO™ Wall Panels in a documented design from approved sources. Fire-resistance-rated assemblies of the INNOVATION MgO™ Wall Panels can be found in IAPMO UES UEL-5074. Users of the listing shall independently verify the current validity of any listing report referenced herein.

3.3 Vertical and Lateral Flame Propagation: The INNOVATION MgO™ Wall Panels may be used in assemblies to demonstrate compliance with NFPA 285. Assemblies, including the INNOVATION MgO™ Panels, can be found in IAPMO UES UEL-5074. Users of the listing shall independently verify the current validity of any listing report referenced herein. These assemblies can be provided for justification when required by the applicable code or building official for approval.

3.4 Interior Use: INNOVATION MgO™ Wall Panels are a Class A interior finish in accordance with Section 803.1.2 of the 2024, 2021, and 2018 IBC and Section 803.1.1 of the 2015 IBC, as applicable. The panels have a flame spread index of 25 or less and a smoke developed index of 450 or less when tested in accordance with ASTM E84. Wall coverings shall be installed as detailed in Section 3.5 of this report.

3.5 Installation

Installation of INNOVATION MgO™ Wall Panels shall be installed in accordance with this report, the approved project construction documents, US MgO™ Installation Manual, and the applicable code. If there are any conflicts, the most restrictive requirements shall govern. The US MgO™ installation guide, this report, and the approved plans shall be available at the job site during installation for quality control purposes.

3.5.1 Interior Wall Finishes: Panels may be finished with wallpaper, paint, tile, stone veneer, or natural stone. Tile, stone veneer, and natural stone shall be attached with dry-set Portland cement mortars or latex modified thin set mortars. The Portland cement mortars shall meet the requirements of ANSI 118.1, and the latex mortars shall meet the requirements of ANSI A118.4. Panels have been evaluated for corrosion effects in wet areas as detailed in Table 3 of this report. Panels installed in uses defined in IRC P2709.2 shall be lined in accordance with the code.

3.5.2 Exterior Walls: Panels used as exterior wall sheathing shall be covered with a water-resistive barrier as detailed in Section 1403.2 of the 2024, 2021, 2018 IBC and Section

1404.2 of the 2015 IBC, and Section R703.2 of the IRC, as applicable. Vapor barriers shall be installed, when required by the applicable code, in accordance with Section 1404.3 of the 2024, 2021, and 2018 IBC and Section 1405.3 of the 2015 IBC, and Section R702.7 of the IRC, as applicable. Exterior wall coverings shall be installed in accordance with the wall covering manufacturer's installation instructions and the applicable code. Fasteners attaching exterior wall coverings shall be installed through the panel into the supporting framing, unless further justification is provided to the building official for approval.

3.5.3 Framing: INNOVATION MgO™ Wall Panels shall be installed over supporting framing designed and constructed to satisfy the strength requirements of the IBC or IRC, as applicable and deflection requirements of Section 3.6.1 of this report. Framing shall be installed in accordance with the IBC or IRC. All panel butt edges shall be supported by framing. The framing members that support panels shall comply with Tables 1 and 2 of this report.

3.5.4 Fasteners: Fastening shall be as detailed in Tables 1 and 2 of this report.

3.6 Design

3.6.1 General: Assemblies using INNOVATION MgO™ Wall Panels shall be designed in accordance with Chapter 16 of the IBC or Section R301.1.3 of the IRC, as applicable, and Tables 1 through 3, as applicable. The design shall address the selection of the framing members, the layout of the wall sheathing, and the fastening specifications for attaching the sheathing to the framing members. Framing shall be designed to limit deflection to L/360. The designs shall be prepared by a structural design professional and shall be submitted to the building official for approval.

3.6.2 Transverse Loads: Allowable applied uniform transverse loads are shown in Table 1 of this report.

3.6.3 Panels Used in In-plane Shear Walls: The panels may be used to resist in-plane (racking) shear loads from wind and earthquake. The design of the structure supporting the shear walls is outside the scope of this report, and walls, which are not designed for the panels to contribute to in-plane lateral shear resistance, shall be braced by other code applicable means and methods.

3.6.4 Panels Used in In-plane Shear Walls in Seismic Design Categories A, B, and C for the IBC and IRC: Panels may be used to resist shear loads from wind and earthquake in Seismic Design Categories A, B, and C, subject to limitations set forth for Seismic Force-Resisting Systems conforming to item A.17 in Table 12.2-1 of ASCE/SEI 7-16 (A.18 in ASCE/SEI 7-22) with a maximum Response modification factor, $R = 2$, Overstrength factor, $\Omega_0 = 2.5$, Deflection amplification factor, $C_d = 2$.



The allowable in-plane racking shear strengths and assembly requirements shall be in accordance with Table 2 of this report. The maximum wall height to width ratio shall be 2:1. The panels shall be oriented with the 8-foot dimension perpendicular to the studs. Earthquake loads on light-framed walls with shear panels shall be determined in accordance with Section 1613 of the IBC.

3.6.5 Special Inspections: Special inspections for wind or seismic resistance corresponding to the applicable type of light-framed construction shall be provided when the panels are components of a wind-force-resisting system or seismic-force-resisting system located in areas set forth in Chapter 17 of the IBC. Inspection requirements shall comply with IBC Section 1705.

4.0 PRODUCT DESCRIPTION

INNOVATION MgO™ Wall Panels are composed of a proprietary magnesium oxychloride (MOC) cement formula and other inorganic materials. The panels are ½-inch thick (nominally 12 mm). The panels are 4 feet (1219 mm) wide by 8 feet (2428 mm) long and are available with square edges. The panels weigh approximately 90 lbs. INNOVATION MgO™ Wall Panels are classified as Class A for surface-burning characteristics in accordance with Section 803.1.2 of the 2024, 2021, and 2018 IBC and Section 803.1.1 of the 2015 IBC, as applicable, based on the results of ASTM E84 testing.

5.0 IDENTIFICATION

INNOVATION MgO™ Wall Panels are identified by a label with the report holder's name (US MgO Company), the product name (INNOVATION MgO™ Wall Panels), panel thickness, the lot number, "this side out", and the evaluation report number (IAPMO UES ER-1029). The IAPMO Uniform Evaluation Service Mark of Conformity may also be used as shown below:



IAPMO UES ER-1029

6.0 SUBSTANTIATING DATA

6.1 Applicable data in accordance with the ICC-ES AC 386 (24) Third edition, Acceptance Criteria for Fiber-reinforced Magnesium-oxide-based Sheets, published April 2025. Includes Appendix A (Corrosion Resistance) of AC 386.

6.2 Applicable data in accordance with the ICC-ES AC 376 (24), Acceptance Criteria for Reinforced Cementitious Sheets used as a Wall and Ceiling Sheathing and Floor Underlayment, approved August 2012, editorially revised December 2024.

6.3 Applicable data in accordance with the ICC-ES AC 378(24), Acceptance Criteria for Fiber-Cement Interior Substate Sheets Used in Wet and Dry Areas, published September 2025.

6.4 Applicable data in accordance with the ICC-ES AC 269.2 (24), Acceptance Criteria for Proprietary Sheathing Job-Site Attached to Wood Light-Frame Wall Construction Used as Shear Walls, published May 2025.

6.5 Report of testing in accordance with ASTM E2768, extended ASTM E84.

6.6 Test reports submitted are from laboratories in compliance with ISO/IEC 17025.

7.0 STATEMENT OF RECOGNITION

This evaluation report describes the results of research completed by IAPMO Uniform Evaluation Service on INNOVATION MgO™ Wall Panels to assess conformance to the codes and standards shown in Section 1.0 of this report and serves as documentation of the product certification. The panels are produced under a quality assurance program with periodic inspections under the supervision of IAPMO UES.

For additional information about this evaluation report please visit www.uniform-es.org or email at us info@uniform-es.org



EVALUATION REPORT

Number: 1029

Originally Issued: 05/12/2026

Revised: 07/28/2026

Valid Through: 05/31/2027

TABLE 1-Allowable Transverse Uniform Loads (psf) ^{1,2,3}

Nominal Thickness (inch)	Fastening Detail	Framing Details ³	Allowable Uniform Load ¹ (psf) (Positive and Negative)
1/2	0.113-inch x 2-inch galvanized ring shank nails spaced at 4 inches on center along the perimeter and 6 inches on center in the field. Fasteners no closer than 3/8-inch from panel edges and 2 inches of panel corners.	Nominal 2 x 4, or larger, wood studs spaced a maximum of 16 inches on-center.	42

¹ Section 3.5 of this report includes further details.

² The allowable uniform load assumes a deflection of L/360.

³ All lumber shall be a minimum Number 2 Spruce Pine Fir and have a minimum SG of 0.42.

TABLE 2-Allowable In-Plane Racking Shear Strength (plf) ^{1,2,3,4,5}

Nominal Thickness (inch)	Fastening Detail	Framing Details ⁵	Allowable Shear Load (plf)
1/2	0.113-inch x 2-inch galvanized ring shank nails spaced at 4 inches on-center on the perimeter and 6 inches in the field. Fasteners no closer than 3/8-inch from panel edges and 2 inches of panel corners.	Studs spaced at a maximum of 24 inches on-center. Wall height of 8 feet.	207

For SI: 1 inch=25.4 mm; 1 plf =14.6 N/m

¹ Section 3.6 of this report includes further details. Allowable Shear load with a corresponding deflection of 0.2 inches (5 mm).

² All lumber shall be a minimum Number 2 Spruce Pine Fir and have a minimum SG of 0.42.

³ The allowable shear loads were determined from wet racking testing prescribed in ASTM E72.

⁴ The maximum aspect ratio is 2:1.

⁵ Panel edges shall be supported by framing or additional blocking.

TABLE 3-Corrosion Effects In Contact With Common Metals¹

Exposure and End Use ²	Metal Type
Interior Walls ³ , Exterior Walls in Non-Coastal Regions ⁴ , Interior Wet Areas ⁴ , Exterior Walls in Coastal Regions ⁵	G90 (z120) Zinc-coated Galvanized Cold-Formed Steel (ASTM A653)
	G60 (z180) Zinc-coated Galvanized Cold-Formed Steel (ASTM A653)
	G40 (z275) Zinc-coated Galvanized Cold-Formed Steel (ASTM A653)
	85-15 Red Brass
	2024-T3 Aluminum Alloy

¹ The effects of corrosion are evaluated using AWWA E12 corrosion rate of less than 20 mils per year.

² End Use options as defined below:

³ Severity Rating 1 (AC 386).

⁴ Severity Rating 2 (AC 386).

⁵ Severity Rating 3 (AC 386).

Table Notes:

1) Interior Walls are walls that do not meet the definition of "Exterior Walls" as defined by the code. Interior Walls are walls that are not exposed to weather.

2) Exterior Walls in Non-Coastal Regions are walls that meet the definition of Exterior Walls as defined by the code. Non-coastal regions are defined as areas that are greater than 3,000 feet from a body of water that contains salt, or a shoreline.

3) Interior Wet Areas as defined by IBC Section 2509.

4) Exterior Walls in Coastal Regions are walls that meet the definition of Exterior Walls as defined by the code. Coastal Regions are defined as areas that are less than 3,000 feet from a body of water that contains salt, or a shoreline.



FLORIDA SUPPLEMENT

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1.0 RECOGNITION

US MgO INNOVATION MgO™ Wall Panels recognized in this report have been evaluated for use as interior and exterior wall sheathing to resist transverse and in-plane shear loads. The strength, surface-burning, and physical properties of the panels comply with the intent of the provisions of the following codes and regulations:

- 2023 Florida Building Code®, Building (FBC, Building)
- 2023 Florida Building Code®, Residential (FBC, Residential)

2.0 LIMITATIONS

Use of the INNOVATION MgO™ Wall Panels recognized in this report is subject to the following limitations:

2.1 FBC, Building: All provisions of IAPMO UES ER-1029 referencing the 2021 IBC shall apply to use under the 2023 FBC, Building.

2.2 FBC, Residential: All provisions of IAPMO UES ER-1029 referencing the 2021 IRC shall apply to use under the 2023 FBC, Residential.

2.3 Exterior Walls shall be protected with a water-resistive barrier as detailed in Section 1403.2 of the FBC, Building and Section R703.2 of the FBC, Residential, as applicable.

2.4 Construction documents, including calculations showing compliance with FBC, Building, Sections 107 and 1603, and this report, shall be submitted to the building official. The construction documents shall be prepared by a registered design professional where required by Chapter 471, Florida Statutes, or Chapter 481, Florida Statutes.

2.5 Verification shall be provided that a quality assurance agency audits the manufacturer's quality assurance program and audits the production quality of products, in accordance with Section (5)(d) of Florida Rule 61G20-3.008. The quality assurance agency shall be approved by the Commission (or by the building official when the report holder does not possess an approval from the Commission).

2.6 Installation of wall coverings shall be with approved corrosion-resistant fasteners in accordance with Section 1405.17 of the FBC, Building.

2.7 This supplement expires concurrently with IAPMO UES ER-1029.

3.0 Evaluation for Use in High-velocity Hurricane Zones (HVHZ): INNOVATION MgO™ Wall Panels meet the requirements of HVHZ provisions of the FBC, Building, and FBC, Residential, when used as an exterior wall sheathing. The panels shall be installed in accordance with Table 1F of this supplement. Impact resistance has not been evaluated in accordance with TAS 201, the panels used as sheathing shall be installed in an assembly meeting Section 1626.4. Further justification for assemblies meeting TAS 201 may be provided to the building official for approval.

4.0 SUBSTANTIATING DATA

4.1 Reports of testing in accordance with TAS 202-94, Criteria for Testing Impact and Non-Impact Resistant Building Envelope Components Using Static Air Pressure.

4.2 Reports of testing in accordance with TAS 203-94, Criteria for Testing Product Subject to Cyclic Wind Pressure Loading.

4.3 Test reports submitted are from laboratories in compliance with ISO/IEC 17025.

TABLE 1F – Design Pressures (psf)^{1,2}

Nominal Thickness (inch)	Fastening Detail	Framing Details ²	Allowable Uniform Load ¹ (psf)
½	0.113-inch x 2-inch galvanized ring shank nails. Fasteners no closer than ⅜-inch from panel edges and 2-inches of panel corners	Nominal 2 x 4, or larger, wood studs spaced a maximum of 16 inches on-center.	38

¹ The Design Pressures are established through static air pressure in accordance with TAS 202 and cyclic wind pressure loading resistance in accordance with TAS 203 Testing.

² All lumber shall be a minimum Number 2 Spruce Pine Fir and have a minimum SG of 0.42.