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# ICC-ES Listing Report
# ESL-1610

*Reissued July 2025*

*Revised October 2025*

*This listing is subject to renewal July 2026.*

**CSI:** DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES
Section: 06 16 00—Sheathing

DIVISION: 09 00 00—FINISHES
Section: 09 28 15—Magnesium Oxide Backing Panels

**Product Certification System:**

The ICC-ES product-certification system includes evaluating evidence in support of test data provided by the listee to verify compliance with the standard(s) listed below. The system also involves factory inspections, and assessment and surveillance of the listee's quality system.

**Product:** ½-INCH INNOVATION MGO™ WALL PANELS
¾-INCH INNOVATION MGO™ SUBFLOOR PANELS
½-INCH INNOVATION MGO™ FLOOR PANELS

**Listee:** US MGO COMPANY, LLC

**Evaluation:** INNOVATION MgO™ Wall Panels are nominally ½-inch (12 mm actual) thick fiberglass-reinforced magnesium oxide sheets used as sheathing in walls. INNOVATION MgO™ Subfloor Panels are nominally ¾-inch (19 mm actual) thick fiberglass-reinforced magnesium oxide sheets used as subfloor sheathing incorporating tongue & groove edges along the long dimension of the panels. INNOVATION MgO™ Floor Panels are nominally ½-inch (12 mm actual) thick fiberglass-reinforced magnesium oxide sheets used as interior flooring underlayment. The panels have a smooth side and a rough side. The panels are available 4 feet (1.22 m) wide and 8 feet (2.44 m) in length.

INNOVATION MgO™ Sheathing Panels were evaluated based on the following standards:

- ASTM E2768-11 (Reapproved 2018), Standard Test Method for Extended Duration Surface Burning Characteristics of Building Materials (30 min. Tunnel Test), ASTM International.
- ASTM E119 (-24 and -22), Standard Test Methods for Fire Tests of Building Construction and Materials, ASTM International.
- UL 263-11 (with revisions through August 2021) and UL 263-11 (with revisions through March 2018), Standard for Fire Tests of Building Construction and Materials, Underwriters Laboratories, Inc.
- CAN/ULC-S101-14, Standard Methods of Fire Endurance Tests of Building Construction and Materials, ULC Standards.
- NFPA 285-23, Standard Fire Test Method for the Evaluation of Fire Propagation Characteristics of Exterior Wall Assemblies Containing Combustible Components, National Fire Protection Association.

**Findings:** INNOVATION MgO™ Sheathing Panels have a flame spread index (FSI) of 25 or less and a smoke-developed index (SDI) of 450 or less, as determined for the initial 10-minute test period in accordance with ASTM E2768. During the subsequent 20-minute test period, the flame front did not progress more than 10.5 ft (3.2 m) beyond the centerline of the burners when tested in accordance with ASTM E2768.

Evaluation of INNOVATION MgO™ Sheathing Panels, as components of an assembly, is based on testing in accordance with the applicable test method as referenced in each ICC Design Number. Approval of the product's use is the sole responsibility of the local building official.

**Identification:**

1. The ICC-ES mark of conformity, electronic labeling, or the listing report (ICC-ES ESL-1610) and when applicable the ICC-ES listing mark, along with the name, registered trademark, or registered logo of the listee must be included in the product label.
2. In addition, each INNOVATION MgO™ Sheathing Panel shall be identified by a stamp or label on the panel bearing the name of the report holder, the product name, and the panel thickness.
3. The report holder's contact information is the following:

   **US MGO COMPANY, LLC**
   **4500 MORRIS PARK DRIVE**
   **MINT HILL, NC 28227**
   **(855) 646-4968**
   **www.usmgo.co**

**Installation:** INNOVATION MgO™ Sheathing Panels must be installed in accordance with the US MgO Company, LLC published installation instructions and as required by the Authority Having Jurisdiction (AHJ).

**Conditions of Listing:**

1. The listing addresses only conformance with the standards noted above.
2. Approval of the product's use is the sole responsibility of the local building official.
3. The listing applies only to the materials tested and as submitted for review by ICC-ES.
4. The design loads (ASD) used in testing for the load-bearing wood-framed walls are based on the allowable axial load of the wall framing studs and support bracing (if applicable), assuming the sheathing provides full lateral bracing to the wall framing in the weak-axis throughout the wall height, in accordance with the NDS (National Design Specification for Wood Construction), unless noted otherwise.
5. The design loads (ASD) used in testing for the load-bearing cold-formed steel-framed walls are based on the allowable axial load of the wall framing studs and support bracing (if applicable) in accordance with AISI S100 (North American Specification for the Design of Cold-Formed Steel Structural Members), unless noted otherwise. Sheathing was not considered in the calculation of the design loads.
6. For a wall assembly tested in accordance with ASTM E119, the Assembly Rating shall apply to both sides of the assembly (fire from either face of the wall), unless noted otherwise.
7. Greater stud sizes (depths) shall be permitted to be used in metal or wood-stud systems in accordance with Section 12.5.2 of ASTM E2032 (Standard Guide for Extension of Data from Fire Resistance Testing Conducted in Accordance with ASTM E119) and the principles pertaining to the fire resistance rating of wall assemblies.
8. The design loads (ASD) used in testing for the wood-framed load-bearing floor/ceiling or roof/ceiling assemblies are based on allowable bending moment and allowable shear of the floor or roof framing member, calculated in accordance with the NDS (National Design Specification for Wood Construction), unless noted otherwise.
9. Increasing the depth of the space between the underside of the floor or joist and the protective ceiling membrane does not reduce the fire resistance rating in accordance with Section 7.3.6 of ASTM E2032 (Standard Guide for Extension of Data from Fire Resistance Tests Conducted in Accordance with ASTM E119) and the principles pertaining to the fire resistance rating of floor assemblies.
10. INNOVATION MgO™ Sheathing panels are manufactured under a quality control program with inspections by ICC-ES.

# ICC Design No. MOS-1610-01

**ESL-1610**

*Reissued July 2025*
*Revised October 2025*
*This listing is subject to renewal July 2026.*

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**Applicant:** US MGO COMPANY, LLC

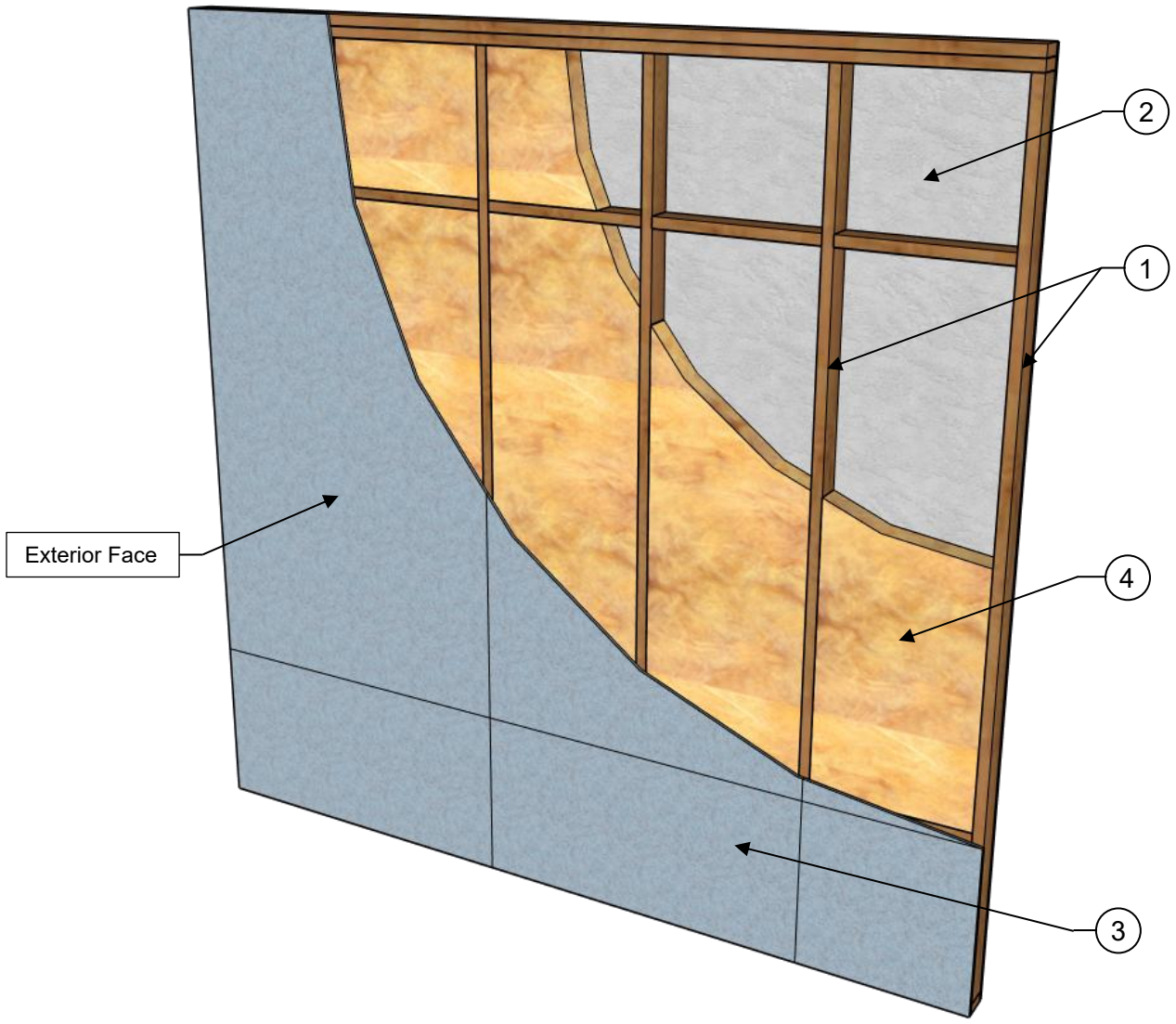
**Product:** ½-INCH INNOVATION MGO™ WALL PANELS

**Standard:** ASTM E119 (UL 263) / CAN/ULC-S101

**Assembly Rating:** 1-Hour

**Load:** Load Bearing (100% Design Load) – See Conditions of Listing Item #4

*MOS = Magnesium Oxide Sheathing*



**COMPONENTS OF CONSTRUCTION:**

| ITEM NO. | COMPONENTS | MATERIALS |
|---|---|---|
| 1 | **Wood Framing—** | Minimum 2-inch by 4-inch (50.8 mm by 101.6 mm) wood studs, with a governing slenderness ratio ($l_e$/d) of 33, spaced maximum 24 inches (609.6 mm) on center, with blocking installed in the weak-axis direction, are secured to top and bottom plates with 3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter smooth shank framing nails. A double top plate is secured to the first top plate with 3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter nails spaced 16 inches (406.4 mm) on center. Full-depth blocking is installed between each stud 24 inches (609.6 mm) from the top of the wall assembly and 24 Inches (609.6 mm) from the bottom of the wall assembly and secured with 3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter nails.<br><br>Note: See Condition of Listing Items 4 and 7 of ESL-1610. |
| 2 | **Interior Sheathing—** | One layer of minimum $^5/_8$-inch (15.9 mm) Type X or Type C gypsum wallboard, complying with ASTM C1396, must be secured directly to the framing, on the interior side of the wall assembly, using minimum 1 $^5/_8$-inch (41.3 mm) long Type W bugle-head steel screws (minimum 1-inch (25.4 mm) fastener penetration into framing members) spaced at 8 inches (203.2 mm) on center along the perimeter and in the field of the gypsum board. Gypsum wallboard must be installed vertically to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. All sheathing joints must be treated with two coats of joint compound with nominal 2-inch (50.8 mm) wide paper tape embedded in the first layer of compound over all joints. All fastener heads must be covered with one layer of joint compound.<br><br>Note: Where Resilient Channels are used (see Component #6), the gypsum boards must be secured to the Resilient Channels using 1-inch (25.4 mm) long No. 6 Type S bugle-head screws spaced 8-inches (203.2 mm) on center along each Resilient Channel. Gypsum wallboard must be installed vertically. All vertical gypsum board seams must be located midway between the stud framing. |
| 3 | **Exterior Sheathing—** | One layer of nominal ½-inch INNOVATION MgO™ Wall Panels must be secured directly to the framing, on the exterior side of the wall assembly, using minimum 1 $^5/_8$-inch (41.3 mm) long No. 8 coarse thread, flat wafer head cement board screws spaced at 8 inches (203.2 mm) on center along the perimeter and in the field of the panel. ½-inch INNOVATION MgO™ Wall Panels may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly by a minimum of one stud cavity. All horizontal seams must be backed by blocking and staggered from one side of the assembly to the opposite sides of the assembly by a minimum of 12 inches (304.8 mm). ½-inch INNOVATION MgO™ Wall Panel edge joints are permitted to be left uncovered without joint compound. Fastener heads are permitted to be left exposed. |
| 4 | **Cavity Insulation—**<br><br>Use either A or B | **A —** Minimum R-13 fiberglass batt insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with nominal thickness of 3 ½-inch (88.9 mm) is friction-fit into each stud cavity. The insulation thickness must match the stud cavity depth.<br><br>**B —** Minimum R-13 mineral wool insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with a nominal thickness of 3 ½-inch (88.9 mm) and a minimum density of 2.0 lbs./ft$^3$ (32 kg/m$^3$) is friction-fit into each stud cavity. The insulation thickness must match the stud cavity depth. |
| 5 | **Exterior Facing Assembly (Not Shown)—** | Where the assembly is used as an exterior wall, any exterior facing may be included, as authorized by the authority having jurisdiction, and must be installed in accordance with the manufacturer's installation instructions. |
| 6 | **Resilient Channel (Optional. Not Shown)-** | Minimum 25-gauge (18 mil) galvanized steel resilient channel installed perpendicular to framing members on the interior side of the wall assembly only and spaced maximum 24-inches (609.6 mm) on center vertically. Resilient channel must be secured using minimum 1 ½-inch (38.1 mm) long No. 8 Type W bugle-head screws at each stud. |

For **SI:** 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 lbs./ft$^3$ = 16.01 kg/m$^3$.

# ICC Design No. MOS-1610-02

**ESL-1610**

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**Applicant:** US MGO COMPANY, LLC

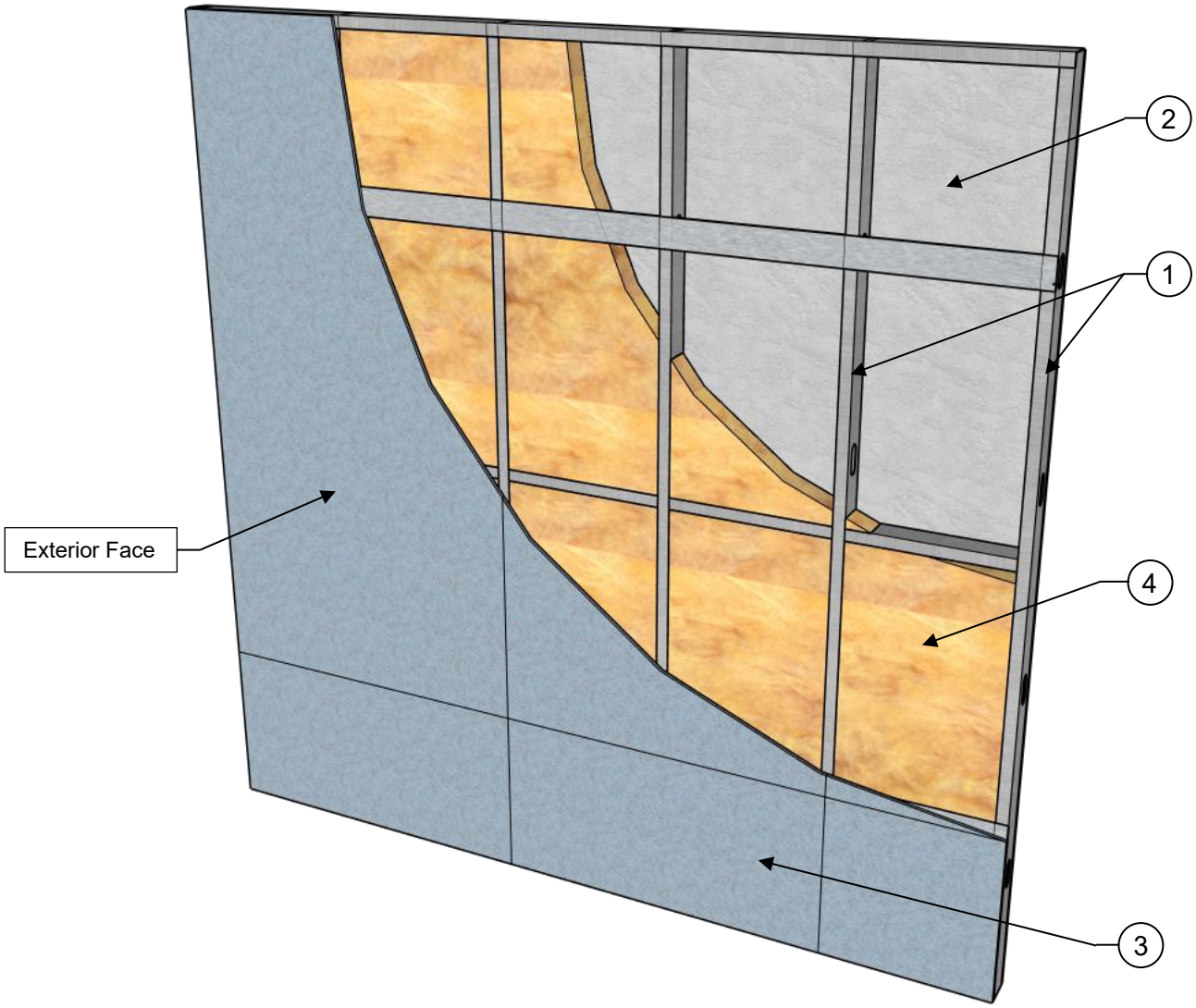
**Product:** ½-INCH INNOVATION MGO™ WALL PANELS

**Standard:** ASTM E119 (UL 263) / CAN/ULC-S101

**Assembly Rating:** 1-Hour

**Load:** Load Bearing (100% Design Load) – See Conditions of Listing Item #5

*MOS = Magnesium Oxide Sheathing*



**COMPONENTS OF CONSTRUCTION:**

| ITEM NO. | COMPONENTS | MATERIALS |
|---|---|---|
| **1** | **Cold-Formed Steel Structural Members—** | Minimum 3 $^{5}/_{8}$-inch (92 mm) deep, minimum 20 gauge (37.5 mils), corrosion-protected or galvanized steel channel-shaped studs with a governing slenderness ratio ($l_e$/d) of 37, spaced maximum 24 inches (609.6 mm) on center, with bracing at mid-height in the weak-axis direction, are secured to top and bottom track members (with same gauge thickness as studs) with $^{1}/_{2}$-inch (12.7 mm) long No. 8 wafer head self-drill screws. Steel studs must have minimum 1 $^{5}/_{8}$-inch (41.3 mm) flanges and $^{1}/_{2}$-inch (12.7 mm) return. Minimum 16-gauge (62.5 mils) galvanized steel channel bracing, with 1 $^{1}/_{2}$-inch (38.1 mm) flanges and $^{1}/_{2}$-inch (12.7 mm) legs, is installed between each stud at mid-height of the wall assembly and attached with 16 gauge (62.5 mils) thick 1 $^{1}/_{2}$-inch by 1 $^{1}/_{2}$-inch (38.1 mm by 38.1 mm) galvanized steel angles at each end with two $^{1}/_{2}$-inch (12.7 mm) long No. 8 pan head self-drilling screws. Minimum 4 inch (101.6 mm) wide, minimum 20 gauge (37.5 mils) thick steel flat strapping plate, used as blocking at sheathing horizontal seams, is installed between each stud 24 inches (609.6 mm) from the top of the wall assembly and 24 inches (609.6 mm) from the bottom of the wall assembly and secured with two $^{1}/_{2}$-inch (12.7 mm) Type S-12 low profile panhead screws.<br><br>Note: See Condition of Listing Items 5 and 7 of ESL-1610. |
| **2** | **Interior Sheathing—** | One layer of minimum $^{5}/_{8}$-inch (15.9 mm) Type X or Type C gypsum wallboard, complying with ASTM C1396, must be secured directly to the framing, on the interior side of the wall assembly, using minimum 1 $^{5}/_{8}$-inch (41.3 mm) long Type S bugle-head steel screws (minimum 1-inch (25.4 mm) fastener penetration into framing members) spaced at 8 inches (203.2 mm) on center along the perimeter and in the field of the gypsum board. Gypsum wallboard must be installed vertically to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. All sheathing joints must be treated with two coats of joint compound with nominal 2-inch (50.8 mm) wide paper tape embedded in the first layer of compound over all joints. All fastener heads must be covered with one layer of joint compound.<br><br>Note: Where Resilient Channels are used (see Component #6), the gypsum boards must be secured to the Resilient Channels using 1-inch (25.4 mm) long No. 6 Type S bugle-head screws spaced 8-inches (203.2 mm) on center along each Resilient Channel. Gypsum wallboard must be installed vertically. All vertical gypsum board seams must be located midway between the stud framing. |
| **3** | **Exterior Sheathing—** | One layer of nominal $^{1}/_{2}$-inch INNOVATION MgO™ Wall Panels must be secured directly to the framing, on the exterior side of the wall assembly, using minimum 1 $^{5}/_{8}$-inch (41.3 mm) long No. 8 fine thread, flat wafer head cement board screws spaced 8 inches (203.2 mm) on center along the perimeter and in the field of the panel. ½-inch INNOVATION MgO™ Wall Panels may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly by a minimum of one stud cavity. All horizontal seams must be backed by blocking and staggered from one side of the assembly to the opposite sides of the assembly by a minimum of 12 inches (304.8 mm). ½-inch INNOVATION MgO™ Wall Panel edge joints are permitted to be left uncovered without joint compound. Fastener heads are permitted to be left exposed. |
| **4** | **Cavity Insulation—**<br><br>Use either A or B | **A —** Minimum R-13 fiberglass batt insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with nominal thickness of 3 $^{5}/_{8}$-inch (92.1 mm) is friction-fit into each stud cavity. The insulation thickness must match the stud cavity depth.<br><br>**B —** Minimum R-13 mineral wool insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with a nominal thickness of 3 $^{5}/_{8}$-inch (92.1 mm) and a minimum density of 2.0 lbs./ft$^3$ (32 kg/m$^3$) is friction-fit into each stud cavity. The insulation thickness must match the stud cavity depth. |
| **5** | **Exterior Facing Assembly (Not Shown)—** | Where the assembly is used as an exterior wall, any exterior facing may be included, as authorized by the authority having jurisdiction, and must be installed in accordance with the manufacturer's installation instructions. |
| **6** | **Resilient Channel (Optional. Not Shown)-** | Minimum 25-gauge (18 mil) galvanized steel resilient channel installed perpendicular to framing members on the interior side of the wall assembly only and spaced maximum 24-inches (609.6 mm) on center vertically. Resilient channel must be secured using minimum 1 ½-inch (38.1 mm) long No. 8 Type S bugle-head screws at each stud. |

For **SI:** 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 lbs./ft$^3$ = 16.01 kg/m$^3$.

# ICC Design No. MOS-1610-03

**ESL-1610**

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**Applicant:** US MGO COMPANY, LLC

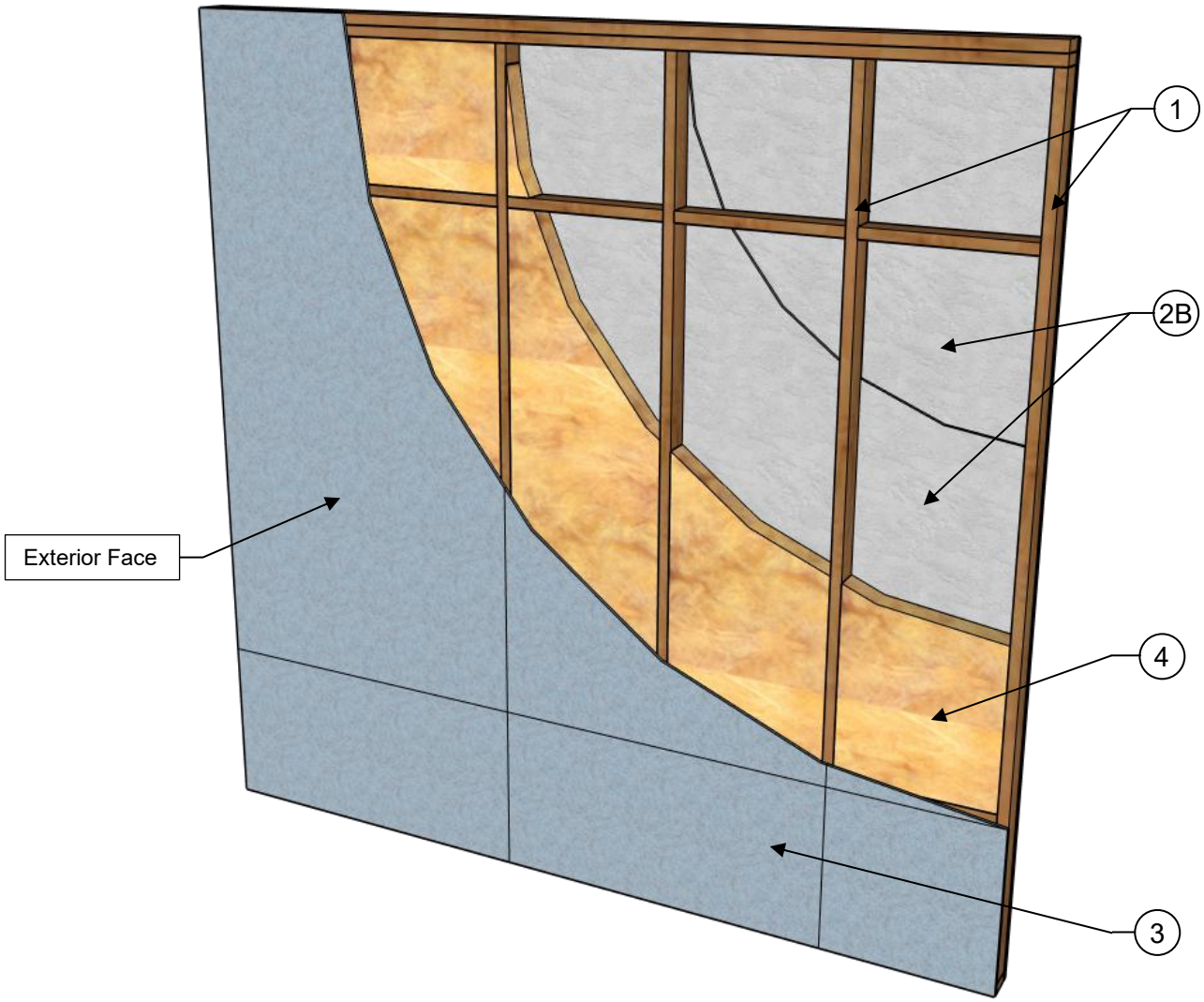
**Product:** ½-INCH INNOVATION MGO™ WALL PANELS

**Standard:** ASTM E119 (UL 263) / CAN/ULC-S101

**Assembly Rating:** 2-Hour from the Interior Face, 1-Hour from the Exterior Face

**Load:** Load Bearing (100% Design Load) – See Conditions of Listing Item #4

*MOS = Magnesium Oxide Sheathing*



**COMPONENTS OF CONSTRUCTION:**

| ITEM NO. | COMPONENTS | MATERIALS |
|---|---|---|
| 1 | **Wood Framing—** | Minimum 2-inch by 4-inch (50.8 mm by 101.6 mm) wood studs, with a governing slenderness ratio ($l_e$/d) of 33, spaced maximum 24 inches (609.6 mm) on center, with blocking installed in the weak-axis direction, are secured to top and bottom plates with 3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter smooth shank framing nails. A double top plate is secured to the first top plate with 3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter nails spaced 16 inches (406.4 mm) on center. Full-depth blocking is installed between each stud 24 inches (609.6 mm) from the top of the wall assembly and 24 inches (609.6 mm) from the bottom of the wall assembly and secured with 3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter nails.<br><br>Note: See Condition of Listing Items 4 and 7 of ESL-1610. |
| 2 | **Interior Sheathing—**<br><br>Use either A or B | **A — Interior Sheathing (MgO) –** Two layers of nominal $^1/_2$-inch INNOVATION MgO™ Wall Panels are secured directly to the base wall system framing, on the interior side of the wall assembly.<br><br>The base layer must be secured to the framing using minimum 1 $^1/_4$-inch (31.8 mm) long No. 8 coarse thread, flat wafer head cement board screws spaced at 8 inches (203.2 mm) on center along the perimeter and in the field of the panel. Base layer may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly by a minimum of one stud cavity. All horizontal seams must be backed by blocking and staggered from one side of the assembly to the opposite sides of the assembly by a minimum of 12 inches (304.8 mm).<br><br>The face layer, with vertical and horizontal panel joints staggered from the base layer, must be secured to the framing using 1 $^5/_8$-inch (41.3 mm) long No. 8 coarse thread, flat wafer head cement board screws spaced at 8 inches (203.2 mm) on center along the perimeter and in the field, with the face layer screws staggered 4 inches (101.6 mm) from the base layer screws. Face layer may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly by a minimum of one stud cavity. ½-inch INNOVATION MgO™ Wall Panel edge joints are permitted to be left uncovered without joint compound. Fastener heads are permitted to be left exposed. |
| | | **B — Interior Sheathing (GWB) –** Two layers of minimum $^5/_8$-inch (15.9 mm) Type X or Type C gypsum wallboard, complying with ASTM C1396, are secured directly to the base wall system framing, on the interior side of the wall assembly.<br><br>The base layer must be secured to the framing using minimum 1 $^3/_8$-inch (34.9 mm) long Type W screws (minimum $^3/_4$-inch (19.1 mm) fastener penetration into framing members) spaced at 8 inches (203.2 mm) on center along the perimeter and in the field of the panel. Gypsum wallboard must be installed vertically to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly.<br><br>The face layer, with vertical panel joints staggered from the base layer, must be secured to the framing using 1 $^7/_8$-inch (47.6 mm) long Type W screws (minimum $^5/_8$-inch (15.9 mm) fastener penetration into framing members) spaced at 8 inches (203.2 mm) on center along the perimeter and in the field, with the face layer screws staggered 4 inches (101.6 mm) from the base layer screws. Face layer must be installed vertically to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly by a minimum of one stud cavity. All face layer sheathing joints edge joints must be treated with two coats of joint compound with nominal 2-inch wide paper tape embedded in first layer of compound over all joints. All fastener heads must be covered with one layer of joint compound. |
| 3 | **Exterior Sheathing—** | One layer of nominal $^1/_2$-inch INNOVATION MgO™ Wall Panels must be secured directly to the framing, on the exterior side of the wall assembly, using minimum 1 $^5/_8$-inch (41.3 mm) long No. 8 coarse thread, flat wafer head cement board screws spaced at 8 inches (203.2 mm) on center along the perimeter and in the field of the panel. ½-inch INNOVATION MgO™ Wall Panels may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly by a minimum of one stud cavity. All horizontal seams must be backed by blocking and staggered from one side of the assembly to the opposite sides of the assembly by a minimum of 12 inches (304.8 mm). ½-inch INNOVATION MgO™ Wall Panel edge joints are permitted to be left uncovered without joint compound. Fastener heads are permitted to be left exposed. |
| 4 | **Cavity Insulation—**<br><br>Use either A or B | **A —** Minimum R-13 fiberglass batt insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with nominal thickness of 3 $^1/_2$-inch (88.9 mm) is friction-fit into each stud cavity. The insulation thickness must match the stud cavity depth.<br>**B —** Minimum R-13 mineral wool insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with a nominal thickness of 3 $^1/_2$-inch (88.9 mm) and a minimum density of 2.0 lbs./ft$^3$ (32 kg/m$^3$) is friction-fit into each stud cavity. The insulation thickness must match the stud cavity depth. |
| 5 | **Exterior Facing Assembly (Not Shown)—** | Where the assembly is used as an exterior wall, any exterior facing may be included, as authorized by the authority having jurisdiction, and must be installed in accordance with the manufacturer's installation instructions. |

For **SI:** 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 lbs./ft$^3$ = 16.01 kg/m$^3$.

# ICC Design No. MOS-1610-04

**ESL-1610**

*Reissued July 2025*
*Revised October 2025*
*This listing is subject to renewal July 2026.*



**Applicant:** US MGO COMPANY, LLC

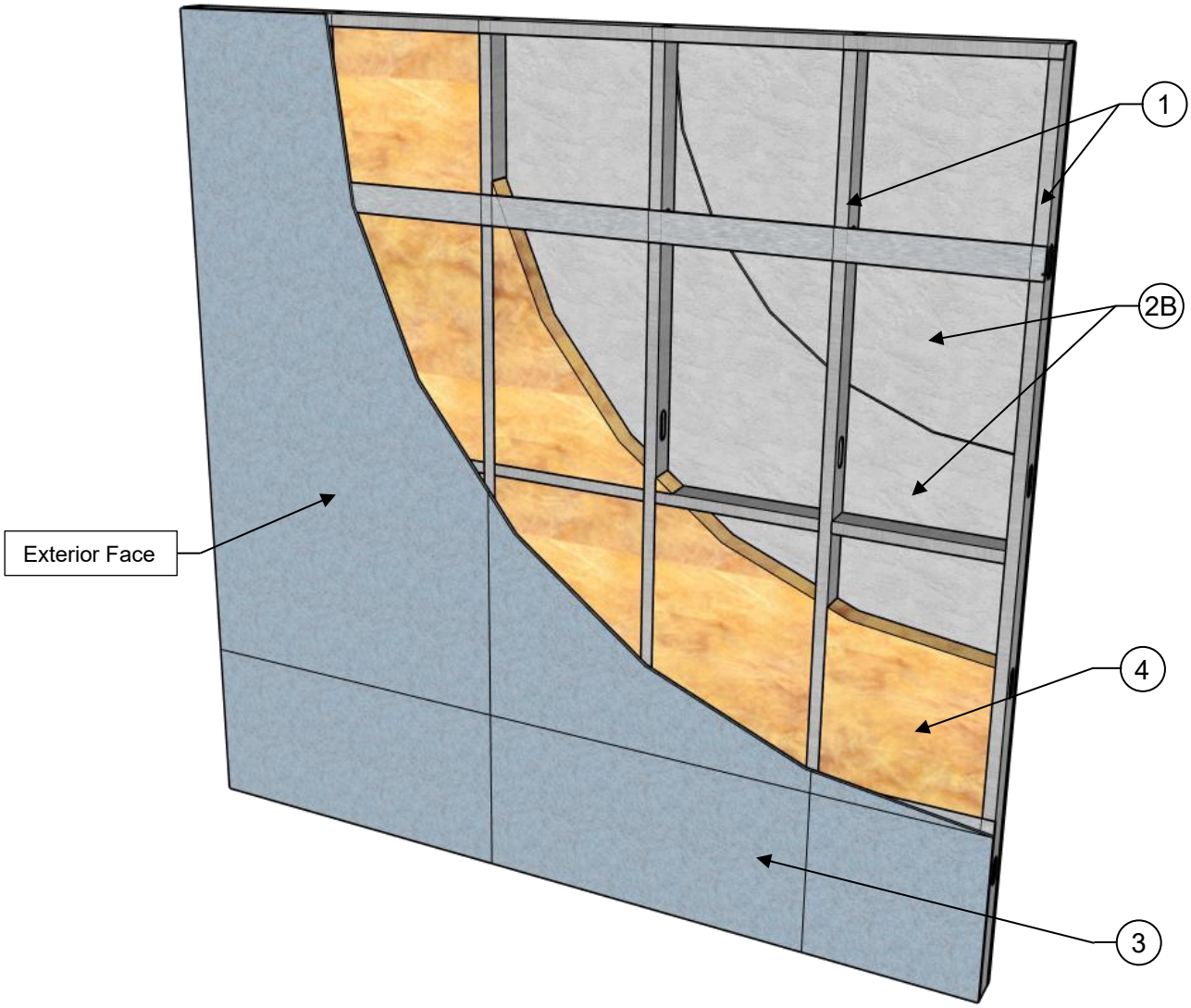
**Product:** ½-INCH INNOVATION MGO™ WALL PANELS

**Standard:** ASTM E119 (UL 263) / CAN/ULC-S101

**Assembly Rating:** 2-Hour from the Interior Face, 1-Hour from the Exterior Face

**Load:** Load Bearing (100% Design Load) – See Conditions of Listing Item #5

*MOS = Magnesium Oxide Sheathing*



**COMPONENTS OF CONSTRUCTION:**

| ITEM NO. | COMPONENTS | MATERIALS |
|---|---|---|
| 1 | **Cold-Formed Steel Structural Members—** | Minimum 3 $^5/_8$-inch (92 mm) deep, minimum 20 gauge (37.5 mils), corrosion-protected or galvanized steel channel-shaped studs with a governing slenderness ratio ($l_e$/d) of 37, spaced maximum 24 inches (609.6 mm) on center, with bracing at mid-height in the weak-axis direction, are secured to top and bottom track members (with same gauge thickness as studs) with $^1/_2$-inch (12.7 mm) long No. 8 wafer head self-drill screws. Steel studs must have minimum 1 $^5/_8$-inch (41.3 mm) flanges and $^1/_2$-inch (12.7 mm) return. Minimum 16-gauge (62.5 mils) galvanized steel channel bracing, with 1 $^1/_2$-inch (38.1 mm) flanges and $^1/_2$-inch (12.7 mm) legs, is installed between each stud at mid-height of the wall assembly and attached with 16 gauge (62.5 mils) thick 1 $^1/_2$-inch by 1 $^1/_2$-inch (38.1 mm by 38.1 mm) galvanized steel angles at each end with two $^1/_2$-inch (12.7 mm) long No. 8 pan head self-drilling screws. Minimum 4 inch (101.6 mm) wide, minimum 20 gauge (37.5 mils) thick steel flat strapping plate, used as blocking at sheathing horizontal seams, is installed between each stud 24 inches (609.6 mm) from the top of the wall assembly and 24 inches (609.6 mm) from the bottom of the wall assembly and secured with two $^1/_2$-inch (12.7 mm) Type S-12 low profile panhead screws.<br><br>Note: See Condition of Listing Items 5 and 7 of ESL-1610. |
| 2 | **Interior Sheathing—**<br><br>Use either A or B | **A — Interior Sheathing (MgO) –** Two layers of nominal $^1/_2$-inch INNOVATION MgO™ Wall Panels are secured directly to the base wall system framing, on the interior side of the wall assembly.<br><br>The base layer must be secured to the framing using minimum 1 $^1/_4$-inch (31.8 mm) long No. 8 fine thread, flat wafer head cement board screws spaced at 8 inches (203.2 mm) on center along the perimeter and in the field of the panel. Base layer may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly by a minimum of one stud cavity. All horizontal seams must be backed by blocking and staggered from one side of the assembly to the opposite sides of the assembly by a minimum of 12 inches (304.8 mm).<br><br>The face layer, with vertical and horizontal panel joints staggered from the base layer, must be secured to the framing using 1 $^5/_8$-inch (41.3 mm) long No. 8 fine thread, flat wafer head cement board screws spaced at 8 inches (203.2 mm) on center along the perimeter and in the field, with the face layer screws staggered 4 inches (101.6 mm) from the base layer screws. Face layer may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly by a minimum of one stud cavity. ½-inch INNOVATION MgO™ Wall Panel edge joints are permitted to be left uncovered without joint compound. Fastener heads are permitted to be left exposed. |
| | | **B — Interior Sheathing (GWB) –** Two layers of minimum $^5/_8$-inch (15.9 mm) Type X or Type C gypsum wallboard, complying with ASTM C1396, are secured directly to the base wall system framing, on the interior side of the wall assembly.<br><br>The base layer must be secured to the framing using minimum 1 $^3/_8$-inch (34.9 mm) long Type S screws (minimum $^3/_4$-inch (19.1 mm) fastener penetration into framing members) spaced at 8 inches (203.2 mm) on center along the perimeter and in the field of the panel. Gypsum wallboard must be installed vertically to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly.<br><br>The face layer, with vertical panel joints staggered from the base layer, must be secured to the framing using 1 $^7/_8$-inch (47.6 mm) long Type S screws (minimum $^5/_8$-inch (15.9 mm) fastener penetration into framing members) spaced at 8 inches (203.2 mm) on center along the perimeter and in the field, with the face layer screws staggered 4 inches (101.6 mm) from the base layer screws. Face layer must be installed vertically to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly by a minimum of one stud cavity. All face layer sheathing joints edge joints must be treated with two coats of joint compound with nominal 2-inch wide paper tape embedded in first layer of compound over all joints. All fastener heads must be covered with one layer of joint compound. |
| 3 | **Exterior Sheathing—** | One layer of nominal $^1/_2$-inch INNOVATION MgO™ Wall Panels must be secured directly to the framing, on the exterior side of the wall assembly, using minimum 1 $^5/_8$-inch (41.3 mm) long No. 8 fine thread, flat wafer head cement board screws spaced at 8 inches (203.2 mm) on center along the perimeter and in the field of the panel. ½-inch INNOVATION MgO™ Wall Panels may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly by a minimum of one stud cavity. All horizontal seams must be backed by blocking and staggered from one side of the assembly to the opposite sides of the assembly by a minimum of 12 inches (304.8 mm). ½-inch INNOVATION MgO™ Wall Panel edge joints are permitted to be left uncovered without joint compound. Fastener heads are permitted to be left exposed. |
| 4 | **Cavity Insulation—**<br><br>Use either A or B | **A —** Minimum R-13 fiberglass batt insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with nominal thickness of 3 $^5/_8$-inch (92.1 mm) is friction-fit into each stud cavity. The insulation thickness must match the stud cavity depth.<br>**B —** Minimum R-13 mineral wool insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with a nominal thickness of 3 $^5/_8$-inch (92.1 mm) and a minimum density of 2.0 lbs./ft$^3$ (32 kg/m$^3$) is friction-fit into each stud cavity. The insulation thickness must match the stud cavity depth. |
| 5 | **Exterior Facing Assembly (Not Shown)—** | Where the assembly is used as an exterior wall, any exterior facing may be included, as authorized by the authority having jurisdiction, and must be installed in accordance with the manufacturer's installation instructions. |

For **SI:** 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 lbs./ft$^3$ = 16.01 kg/m$^3$.

# ICC Design No. MOS-1610-05

**ESL-1610**

*Reissued July 2025*
*Revised October 2025*
*This listing is subject to renewal July 2026.*



**Applicant:** US MGO COMPANY, LLC

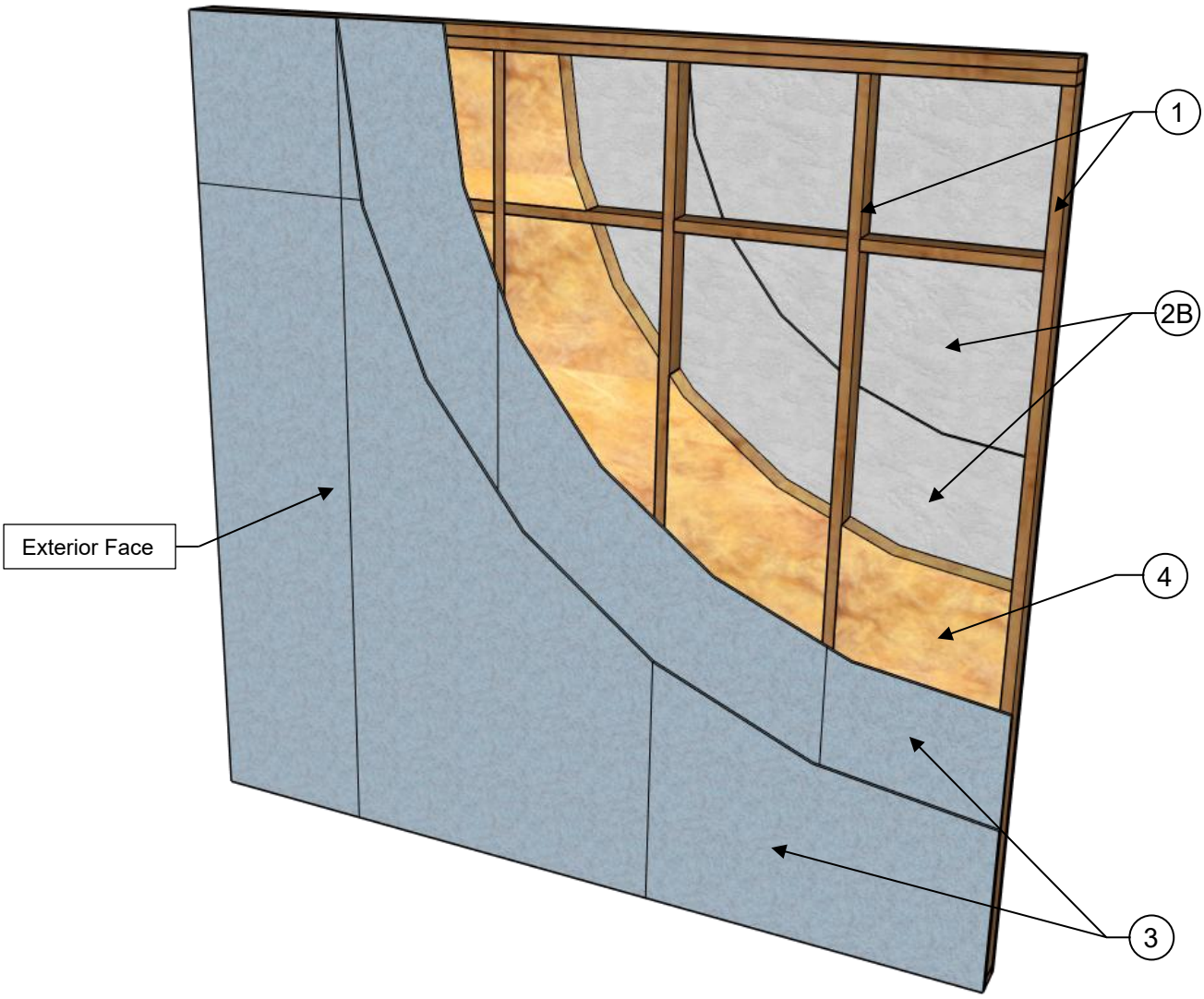
**Product:** ½-INCH INNOVATION MGO™ WALL PANELS

**Standard:** ASTM E119 (UL 263) / CAN/ULC-S101

**Assembly Rating:** 2-Hour

**Load:** Load Bearing (100% Design Load) – See Conditions of Listing Item #4

*MOS = Magnesium Oxide Sheathing*



**COMPONENTS OF CONSTRUCTION:**

| ITEM NO. | COMPONENTS | MATERIALS |
|---|---|---|
| 1 | **Wood Framing—** | Minimum 2-inch by 4-inch (50.8 mm by 101.6 mm) wood studs, with a governing slenderness ratio ($l_e$/d) of 33, spaced maximum 24 inches (609.6 mm) on center, with blocking installed in the weak-axis direction, are secured to top and bottom plates with 3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter smooth shank framing nails. A double top plate is secured to the first top plate with 3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter nails spaced 16 inches (406.4 mm) on center. Full-depth blocking is installed between each stud 24 inches (609.6 mm) from the top of the wall assembly and 24 inches (609.6 mm) from the bottom of the wall assembly and secured with 3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter nails.<br><br>Note: See Condition of Listing Items 4 and 7 of ESL-1610. |
| 2 | **Interior Sheathing—**<br><br>Use either A or B | **A — Interior Sheathing (MgO) –** Two layers of nominal 1/2-inch INNOVATION MgO™ Wall Panels are secured directly to the base wall system framing, on the interior side of the wall assembly.<br><br>The base layer must be secured to the framing using minimum 1 1/4-inch (31.8 mm) long No. 8 coarse thread, flat wafer head cement board screws spaced at 8 inches (203.2 mm) on center along the perimeter and in the field of the panel. Base layer may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly by a minimum of one stud cavity. All horizontal seams must be backed by blocking and staggered from one side of the assembly to the opposite sides of the assembly by a minimum of 12 inches (304.8 mm).<br><br>The face layer, with vertical and horizontal panel joints staggered from the base layer, must be secured to the framing using 1 5/8-inch (41.3 mm) long No. 8 coarse thread, flat wafer head cement board screws spaced at 8 inches (203.2 mm) on center along the perimeter and in the field, with the face layer screws staggered 4 inches (101.6 mm) from the base layer screws. Face layer may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly by a minimum of one stud cavity. ½-inch INNOVATION MgO™ Wall Panel edge joints are permitted to be left uncovered without joint compound. Fastener heads are permitted to be left exposed. |
| | | **B — Interior Sheathing (GWB) –** Two layers of minimum 5/8-inch (15.9 mm) Type X or Type C gypsum wallboard, complying with ASTM C1396, are secured directly to the base wall system framing, on the interior side of the wall assembly.<br><br>The base layer must be secured to the framing using minimum 1 3/8-inch (34.9 mm) long Type W screws (minimum 3/4-inch (19.1 mm) fastener penetration into framing members) spaced at 8 inches (203.2 mm) on center along the perimeter and in the field of the panel. Gypsum wallboard must be installed vertically to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly.<br><br>The face layer, with vertical panel joints staggered from the base layer, must be secured to the framing using 1 7/8-inch (47.6 mm) long Type W screws (minimum 5/8-inch (15.9 mm) fastener penetration into framing members) spaced at 8 inches (203.2 mm) on center along the perimeter and in the field, with the face layer screws staggered 4 inches (101.6 mm) from the base layer screws. Face layer must be installed vertically to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly by a minimum of one stud cavity. All face layer sheathing joints edge joints must be treated with two coats of joint compound with nominal 2-inch wide paper tape embedded in first layer of compound over all joints. All fastener heads must be covered with one layer of joint compound. |
| 3 | **Exterior Sheathing—** | Two layers of nominal 1/2-inch INNOVATION MgO™ Wall Panels are secured directly to the base wall system framing, on the interior side of the wall assembly.<br><br>The base layer must be secured to the framing using minimum 1 1/4-inch (31.8 mm) long No. 8 coarse thread, flat wafer head cement board screws spaced at 8 inches (203.2 mm) on center along the perimeter and in the field of the panel. Base layer must be installed vertically to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly by a minimum of one stud cavity. All horizontal seams must be backed by blocking and staggered from one side of the assembly to the opposite sides of the assembly by a minimum of 12 inches (304.8 mm).<br><br>The face layer, with vertical and horizontal panel joints staggered from the base layer, must be secured to the framing using 1 5/8-inch (41.3 mm) long No. 8 coarse thread, flat wafer head cement board screws spaced at 8 inches (203.2 mm) on center along the perimeter and in the field, with the face layer screws staggered 4 inches (101.6 mm) from the base layer screws. Face layer must be installed vertically to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly by a minimum of one stud cavity. ½-inch INNOVATION MgO™ Wall Panel edge joints are permitted to be left uncovered without joint compound. Fastener heads are permitted to be left exposed. |

| ITEM NO. | COMPONENTS | MATERIALS |
|---|---|---|
| **4** | **Cavity Insulation—**<br><br>Use either A or B | **A —** Minimum R-13 fiberglass batt insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with nominal thickness of 3 $^{1}/_{2}$-inch (88.9 mm) is friction-fit into each stud cavity. The insulation thickness must match the stud cavity depth.<br><br>**B —** Minimum R-13 mineral wool insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with a nominal thickness of 3 $^{1}/_{2}$-inch (88.9 mm) and a minimum density of 2.0 lbs./ft$^3$ (32 kg/m$^3$) is friction-fit into each stud cavity. The insulation thickness must match the stud cavity depth. |
| **5** | **Exterior Facing Assembly (Not Shown)—** | Where the assembly is used as an exterior wall, any exterior facing may be included, as authorized by the authority having jurisdiction, and must be installed in accordance with the manufacturer's installation instructions. |

For **SI:** 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 lbs./ft$^3$ = 16.01 kg/m$^3$.

# ICC Design No. MOS-1610-06

**ESL-1610**

*Reissued July 2025*
*Revised October 2025*
*This listing is subject to renewal July 2026.*



**Applicant:** US MGO COMPANY, LLC

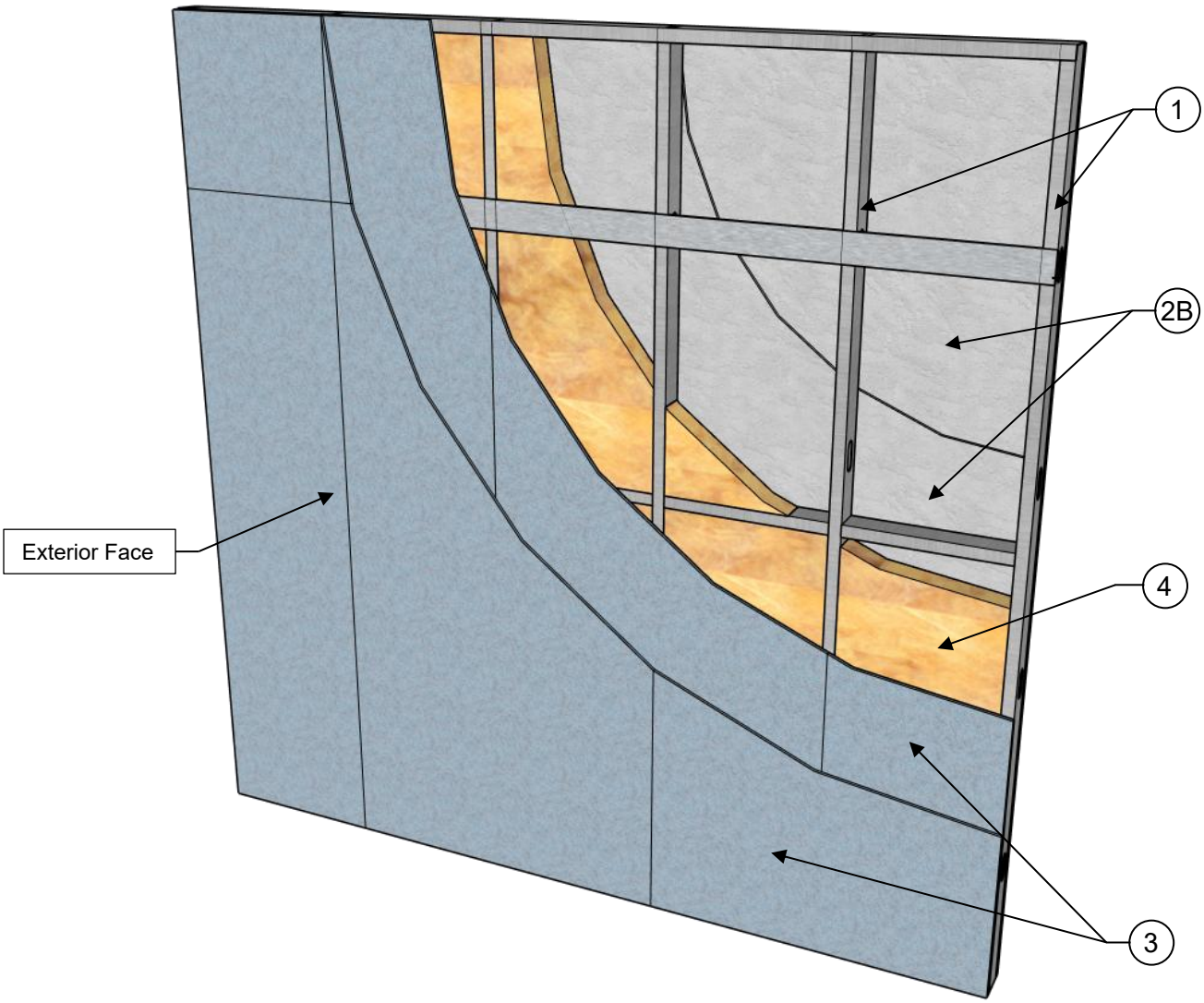
**Product:** ½-INCH INNOVATION MGO™ WALL PANELS

**Standard:** ASTM E119 (UL 263) / CAN/ULC-S101

**Assembly Rating:** 2-Hour

**Load:** Load Bearing (100% Design Load) – See Conditions of Listing Item #5

*MOS = Magnesium Oxide Sheathing*



**COMPONENTS OF CONSTRUCTION:**

| ITEM NO. | COMPONENTS | MATERIALS |
|---|---|---|
| 1 | **Cold-Formed Steel Structural Members—** | Minimum 3 $^5/_8$-inch (92 mm) deep, minimum 20 gauge (37.5 mils), corrosion-protected or galvanized steel channel-shaped studs with a governing slenderness ratio ($l_e$/d) of 37, spaced maximum 24 inches (609.6 mm) on center, with bracing at mid-height in the weak-axis direction, are secured to top and bottom track members (with same gauge thickness as studs) with $^1/_2$-inch (12.7 mm) long No. 8 wafer head self-drill screws. Steel studs must have minimum 1 $^5/_8$-inch (41.3 mm) flanges and $^1/_2$-inch (12.7 mm) return. Minimum 16-gauge (62.5 mils) galvanized steel channel bracing, with 1 $^1/_2$-inch (38.1 mm) flanges and $^1/_2$-inch (12.7 mm) legs, is installed between each stud at mid-height of the wall assembly and attached with 16 gauge (62.5 mils) thick 1 $^1/_2$-inch by 1 $^1/_2$-inch (38.1 mm by 38.1 mm) galvanized steel angles at each end with two $^1/_2$-inch (12.7 mm) long No. 8 pan head self-drilling screws. Minimum 4 inch (101.6 mm) wide, minimum 20 gauge (37.5 mils) thick steel flat strapping plate, used as blocking at sheathing horizontal seams, is installed between each stud 24 inches (609.6 mm) from the top of the wall assembly and 24 inches (609.6 mm) from the bottom of the wall assembly and secured with two $^1/_2$-inch (12.7 mm) Type S-12 low profile panhead screws.<br><br>Note: See Condition of Listing Items 5 and 7 of ESL-1610. |
| 2 | **Interior Sheathing—**<br><br>Use either A or B | **A — Interior Sheathing (MgO) –** Two layers of nominal $^1/_2$-inch INNOVATION MgO™ Wall Panels are secured directly to the base wall system framing, on the interior side of the wall assembly.<br><br>The base layer must be secured to the framing using minimum 1 $^1/_4$-inch (31.8 mm) long No. 8 fine thread, flat wafer head cement board screws spaced at 8 inches (203.2 mm) on center along the perimeter and in the field of the panel. Base layer may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly by a minimum of one stud cavity. All horizontal seams must be backed by blocking and staggered from one side of the assembly to the opposite sides of the assembly by a minimum of 12 inches (304.8 mm).<br><br>The face layer, with vertical and horizontal panel joints staggered from the base layer, must be secured to the framing using 1 $^5/_8$-inch (41.3 mm) long No. 8 fine thread, flat wafer head cement board screws spaced at 8 inches (203.2 mm) on center along the perimeter and in the field, with the face layer screws staggered 4 inches (101.6 mm) from the base layer screws. Face layer may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly by a minimum of one stud cavity. ½-inch INNOVATION MgO™ Wall Panel edge joints are permitted to be left uncovered without joint compound. Fastener heads are permitted to be left exposed. |
| | | **B — Interior Sheathing (GWB) –** Two layers of minimum $^5/_8$-inch (15.9 mm) Type X or Type C gypsum wallboard, complying with ASTM C1396, are secured directly to the base wall system framing, on the interior side of the wall assembly.<br><br>The base layer must be secured to the framing using minimum 1 $^3/_8$-inch (34.9 mm) long Type S screws (minimum $^3/_4$-inch (19.1 mm) fastener penetration into framing members) spaced at 8 inches (203.2 mm) on center along the perimeter and in the field of the panel. Gypsum wallboard must be installed vertically to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly.<br><br>The face layer, with vertical panel joints staggered from the base layer, must be secured to the framing using 1 $^7/_8$-inch (47.6 mm) long Type S screws (minimum $^5/_8$-inch (15.9 mm) fastener penetration into framing members) spaced at 8 inches (203.2 mm) on center along the perimeter and in the field, with the face layer screws staggered 4 inches (101.6 mm) from the base layer screws. Face layer must be installed vertically to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly by a minimum of one stud cavity. All face layer sheathing joints edge joints must be treated with two coats of joint compound with nominal 2-inch wide paper tape embedded in first layer of compound over all joints. All fastener heads must be covered with one layer of joint compound. |
| 3 | **Exterior Sheathing—** | Two layers of nominal $^1/_2$-inch INNOVATION MgO™ Wall Panels are secured directly to the base wall system framing, on the interior side of the wall assembly.<br><br>The base layer must be secured to the framing using minimum 1 $^1/_4$-inch (31.8 mm) long No. 8 fine thread, flat wafer head cement board screws spaced at 8 inches (203.2 mm) on center along the perimeter and in the field of the panel. Base layer may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly by a minimum of one stud cavity. All horizontal seams must be backed by blocking and staggered from one side of the assembly to the opposite sides of the assembly by a minimum of 12 inches (304.8 mm).<br><br>The face layer, with vertical and horizontal panel joints staggered from the base layer, must be secured to the framing using 1 $^5/_8$-inch (41.3 mm) long No. 8 fine thread, flat wafer head cement board screws spaced at 8 inches (203.2 mm) on center along the perimeter and in the field, with the face layer screws staggered 4 inches (101.6 mm) from the base layer screws. Face layer may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly by a minimum of one stud cavity. ½-inch INNOVATION MgO™ Wall Panel edge joints are permitted to be left uncovered without joint compound. Fastener heads are permitted to be left exposed. |

| ITEM NO. | COMPONENTS | MATERIALS |
|---|---|---|
| 4 | **Cavity Insulation—**<br><br>Use either A or B | **A —** Minimum R-13 fiberglass batt insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with nominal thickness of 3 $^{5}/_{8}$-inch (92.1 mm) is friction-fit into each stud cavity. The insulation thickness must match the stud cavity depth.<br><br>**B —** Minimum R-13 mineral wool insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with a nominal thickness of 3 $^{5}/_{8}$-inch (92.1 mm) and a minimum density of 2.0 lbs./ft$^3$ (32 kg/m$^3$) is friction-fit into each stud cavity. The insulation thickness must match the stud cavity depth. |
| 5 | **Exterior Facing Assembly (Not Shown)—** | Where the assembly is used as an exterior wall, any exterior facing may be included, as authorized by the authority having jurisdiction, and must be installed in accordance with the manufacturer's installation instructions. |

For **SI:** 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 lbs./ft$^3$ = 16.01 kg/m$^3$.

# ICC Design No. MOS-1610-07

**ESL-1610**

*Reissued July 2025*
*Revised October 2025*
*This listing is subject to renewal July 2026.*

www.icc-es.org | (800) 423-6587 | (562) 699-0543 *A Subsidiary of the International Code Council®*

**Applicant:** US MGO COMPANY, LLC

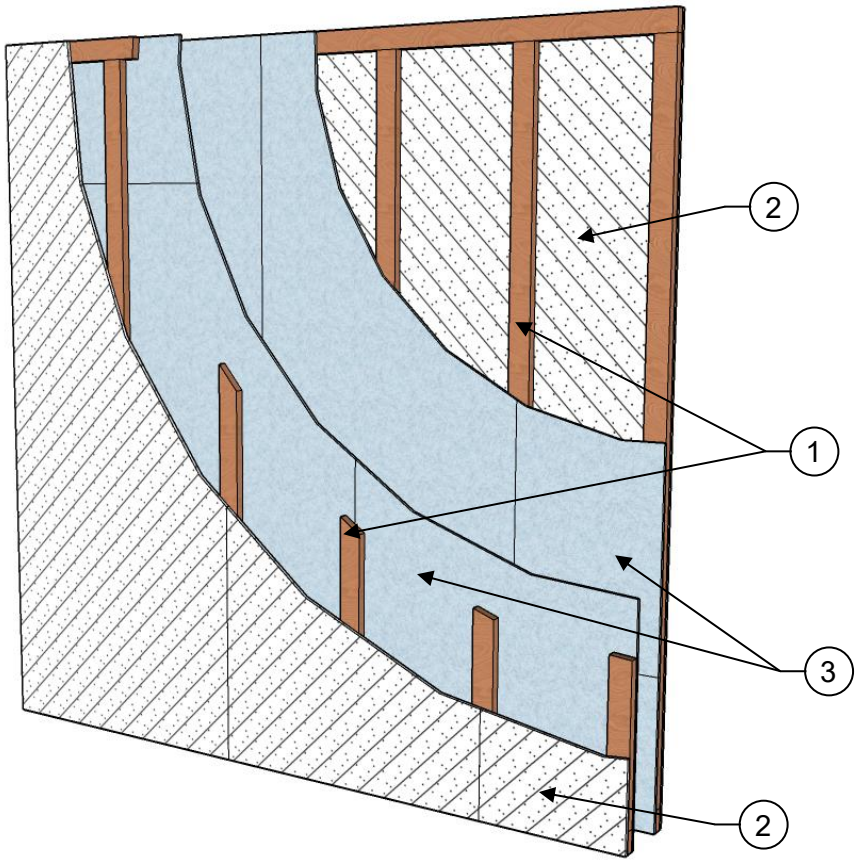
**Product:** ½-INCH INNOVATION MGO™ WALL PANELS

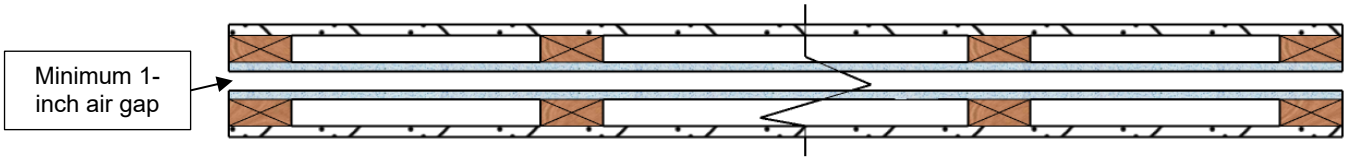
**Standard:** ASTM E119 (UL 263) / CAN/ULC-S101

**Assembly Rating:** 2-Hour

**Load:** Non-Load Bearing

*MOS = Magnesium Oxide Sheathing*



**Components of Construction:**

| ITEM NO. | COMPONENTS | MATERIALS |
|---|---|---|
| 1 | **Wall Framing (Double Wall)-** | Each wall section consists of nominal 2-inch by 4-inch (50.8 mm x 101.6 mm) wood studs installed in the flatwise direction and spaced maximum 24 inches (609.6 mm) on center. The wood studs are secured to top and bottom plates (installed in the flatwise direction) with 2 inch (50.8 mm) wide by 4 inch (101.6 mm) long 20-gauge galvanized metal truss connector plates. Woods studs are permitted to be staggered between wall sections. A minimum 1-inch (25.4 mm) air gap is required between wall sections in the double wall assembly. |
| 2 | **Sheathing (Gypsum Wallboard)-** | One layer of minimum ⅝-inch (15.9 mm) Type X or Type C gypsum wallboard complying with ASTM C1396 must be secured to the framing on each wall section using 1 ⅝-inch (41.3 mm) long Type W bugle-head steel screws spaced 8 inches (203.2 mm) on center along the perimeter and in the field of the gypsum board. All joints must be covered using 2 inch (50.8 mm) wide paper joint tape and two layers of joint compound. All fastener heads must be covered using joint compound.<br><br>Note: Where resilient channels are used (see Item No. 4), the gypsum boards must be secured to the resilient channels using 1 inch (25.4 mm) long No. 6 Type S bugle-head steel drywall screws spaced at 8 inches (203.2 mm) on center along each resilient channel. The vertical joints of the gypsum board must be located midway between the stud framing. |
| 3 | **Sheathing (Innovation MgO Panel)-** | One layer of ½-inch INNOVATION MgO™ Wall Panels must be secured to the framing on each wall section using 1 ⅝-inch (41.3 mm) long, No. 8 Type W wafer-head steel screws. Fasteners are spaced 8 inches (203.2 mm) on center in the field and along the perimeter of the panel. ½-inch INNOVATION MgO™ Wall Panels may be installed with the long dimension parallel or perpendicular to the studs. All seams must be staggered from one side of each wall section to the opposite side of the same wall section by a minimum of 12 inches for horizontal seams or one stud cavity for vertical seams. Horizontal and vertical ½-inch INNOVATION MgO™ Wall Panel joints are permitted to be left uncovered without joint compound. Fastener heads are permitted to be left exposed. |
| 4 | **Resilient Channel (Optional. Not Shown)-** | Minimum 25-gauge (17.9 mils) thick galvanized steel resilient channel, installed perpendicular to framing members on the interior side (gypsum board side) of each wall section and spaced a maximum 24 inches (609.6 mm) on center vertically, must be secured using 1 ½-inch (38.1 mm) long No. 8 Type W bugle-head steel screws at each stud. |

For **SI:** 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 lbs./ft$^3$ = 16.01 kg/m$^3$.

# ICC Design No. MOS-1610-08

# ESL-1610

*Reissued July 2025*
*Revised October 2025*
*This listing is subject to renewal July 2026.*

www.icc-es.org | (800) 423-6587 | (562) 699-0543 *A Subsidiary of the International Code Council®*

**Applicant:** US MGO COMPANY, LLC

**Product:** ¾-INCH INNOVATION MGO™ SUBFLOOR PANELS and ½-INCH INNOVATION MGO™ FLOOR PANELS

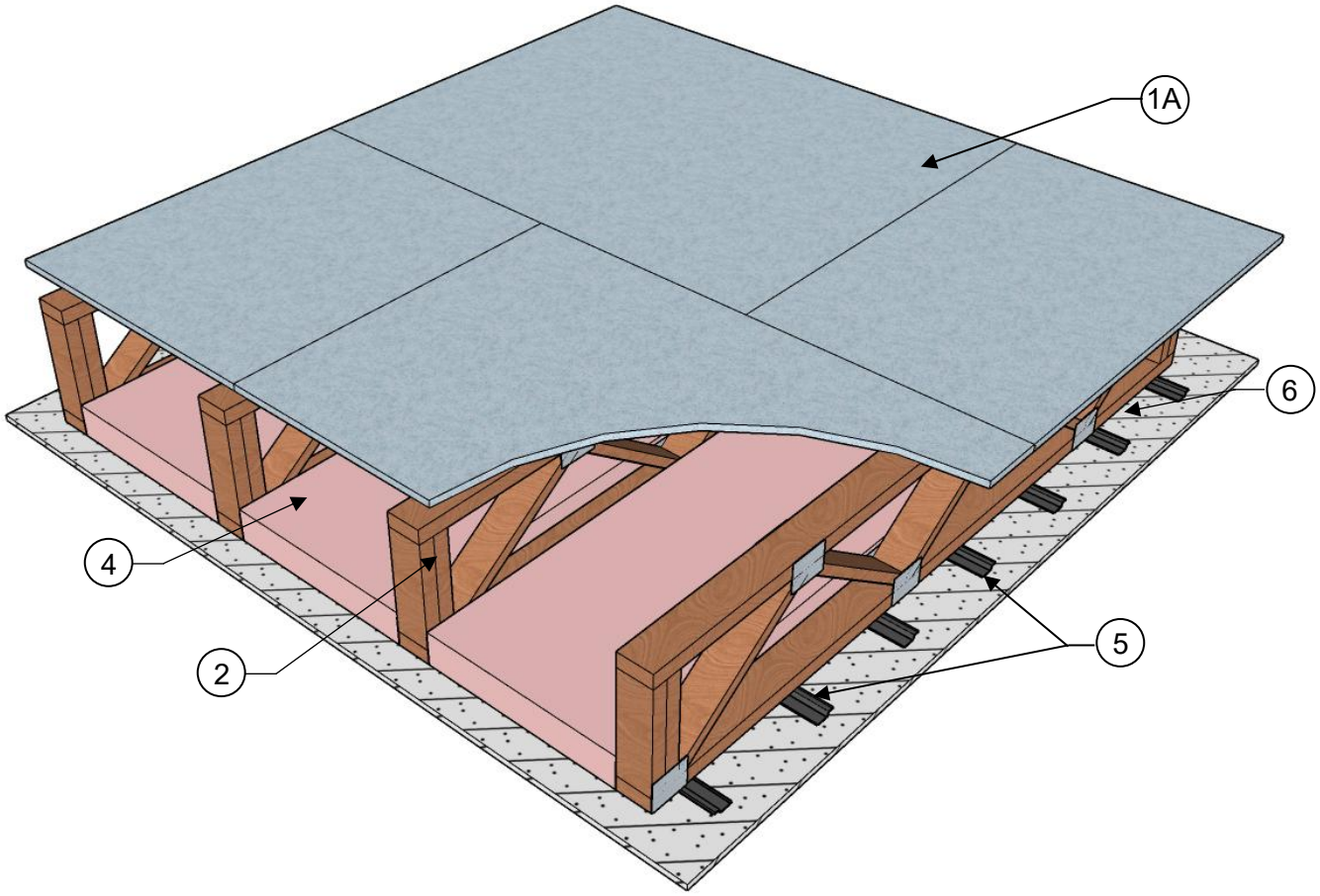
**Standard:** ASTM E119 (UL 263) / CAN/ULC-S101

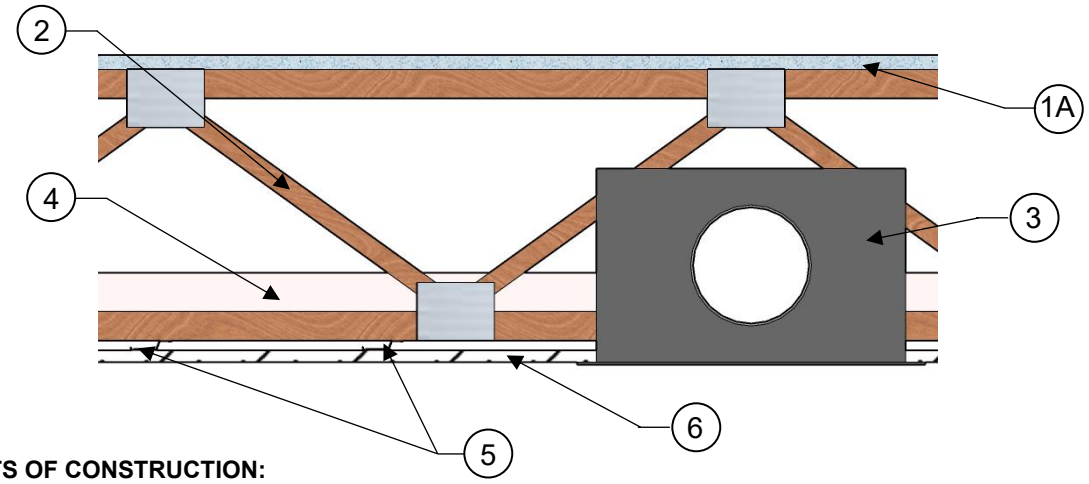
**Assembly Type:** Floor/Ceiling (Unrestrained)

**Assembly Rating:** 1-Hour

**Load:** Load Bearing (100% Design) -See Condition of Listing Item #8

*MOS = Magnesium Oxide Sheathing*






**COMPONENTS OF CONSTRUCTION:**

| ITEM NO. | COMPONENTS | MATERIALS |
|---|---|---|
| 1 | **Flooring System**<br><br>**Use either:**<br>• **"A" Only**<br>• **"B1" and "B2"**<br>• **"A" and "B2"** | A – ¾-inch (19 mm) thick tongue & groove INNOVATION MgO™ Subfloor Panels installed with long edges perpendicular to the framing members with end joints staggered. ¾-inch INNOVATION MgO™ Subfloor Panels must be secured along each framing member using 2-inch (50.8 mm) long 6D ring shank nails, spaced a maximum 12-inches (304.8 mm) on center in the field of the panels and spaced a maximum 6-inches (152.4 mm) on center along the edges of the panel. Fasteners must not be placed closer than 1-inch (25.4 mm) from all panel edges and no closer than 2-inches (50.8 mm) from panel corners.<br><br>B1 – Subfloor Sheathing – Minimum 23/32-inch (18.3 mm) thick Tongue & Groove wood structural panel subfloor panels installed with long edge perpendicular to the framing members with end joints staggered. Panels must be secured to the framing members using 2-inch (50.8 mm) long 6D ring shank nails, spaced a maximum 12-inches (304.8 mm) on center along each framing member.<br><br>B2 - Underlayment – ½-inch INNOVATION MgO™ Floor Panels installed perpendicular to framing with board edges staggered a minimum of 4-inches (101.6 mm) between subfloor and ½-inch INNOVATION MgO™ Floor Panels. ½-inch INNOVATION MgO™ Floor Panel end joints must be centered over the framing members and staggered, at minimum one joist cavity from the subfloor sheathing. ½-inch INNOVATION MgO™ Floor Panels must be fastened to the top of the subfloor with minimum 2 ½-inch (63.5 mm) long 6D ring shank nails, spaced a maximum 12-inches (304.8 mm) along each framing member. Underlayment fasteners must be staggered from the subfloor fasteners and must not be placed closer than 1-inch (25.4 mm) from all panel edges and no closer than 2-inches (50.8 mm) from panel corners. |
| 2 | **Floor Framing** | 18-inch (457.2 mm) deep parallel chord open web wood trusses fabricated from nominal 2x4 lumber. Truss members secured together with minimum 20-gauge (37.5 mils) galvanized steel plates, spaced maximum 24-inch (610 mm) on center. Where constructed with the optional ceiling radiation damper (Item 3), the minimum depth for the trusses must be 18-inches (457.2 mm). When constructed without the optional ceiling radiation damper (Item 3), the minimum depth for the trusses must be 12-inches (304.8 mm).<br><br>Note: See Condition of Listing Items 8 and 9 of ESL-1610. |
| 3 | **Ceiling Radiation Damper (Optional)** | For use with minimum 18-inch (457.2 mm) deep open web wood trusses. Damper must be UL 555C listed. Damper must not exceed a maximum height of 14-inches (355.6 mm), with a maximum nominal area 324-inches$^2$ (2090.3 cm$^2$). The maximum dimension for any width must not exceed 18-inches (457.2 mm). A steel grille is installed per the damper manufacturer's installation instructions. The ceiling damper is to be connected to a Class 0 or Class 1, insulated air duct installed per the duct manufacturer's installation instructions. |
| 4 | **Insulation** | Minimum 3 ½-inch (88.9 mm) thick, Class A fiberglass batt insulation or non-combustible mineral wool batt insulation complying with Type I per ASTM C665, draped over the resilient channels within each stud cavity. |
| 5 | **Furring Type (Resilient Channel)** | ½-inch (12.7 mm) deep, minimum 25-gauge (18 mil) galvanized steel resilient channel installed perpendicular to framing members and secured to the underside of the framing members using 1 ¼-inch (31.8 mm) long No. 6 Type W bugle-head screws. The channels must be spaced a maximum 12-inches (304.8 mm) on center. The channels must be overlapped a minimum of 4-inches (101.6) at splices. Additional channels must be installed 3-inches (76.2 mm) from ceiling membrane board end joints and secured to adjacent framing members. |
| 6 | **Ceiling Membrane**<br><br>**Use either A through F** | A – American Gypsum Company LLC FireBloc® Type C Gypsum Board<br>B – CertainTeed Gypsum, Inc. CertainTeed® Type C Gypsum Board<br>C – National Gypsum Company GoldBond® Fire-Shield C™ Gypsum Board<br>D – Georgia-Pacific Gypsum LLC ToughRock® Fireguard C® Gypsum Board<br>E – United States Gypsum Company (USG) Sheetrock® Brand FireCode C Gypsum Board<br>F – PABCO® Gypsum FLAME CURB® Type C Gypsum Board<br><br>One layer of minimum ⅝-inch (15.9 mm) thick, Type C Gypsum Board must be installed with long dimension perpendicular to resilient channels with end joints staggered a minimum of 2-feet (609.6 mm). Gypsum board must be secured to channels using minimum 1 ¼-inch (31.8 mm) long No. 6 Type S bugle-head steel |

| ITEM NO. | COMPONENTS | MATERIALS |
|---|---|---|
| | | drywall screws spaced 8-inches (203.2 mm) on center. Fasteners along the long edge of panel are spaced 1-inch (25.4mm) away from the edge, and 3-inches (76.2 mm) from the butt joints into the resilient channel at the end of the panel. All panel edge joints must be treated with two coats of joint compound with nominal 2-inch (50.8 mm) wide paper tape embedded in the first layer of compound over all joints. All fastener heads must be covered with two layers of joint compound. |

For **SI:** 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 lbs./ft$^3$ = 16.01 kg/m$^3$.

# ICC Design No. MOS-1610-09

# ESL-1610

*Reissued July 2025*
*Revised October 2025*
*This listing is subject to renewal July 2026.*



**Applicant:** US MGO COMPANY, LLC

**Product:** ¾-INCH INNOVATION MGO™ SUBFLOOR PANELS and ½-INCH INNOVATION MGO™ FLOOR PANELS

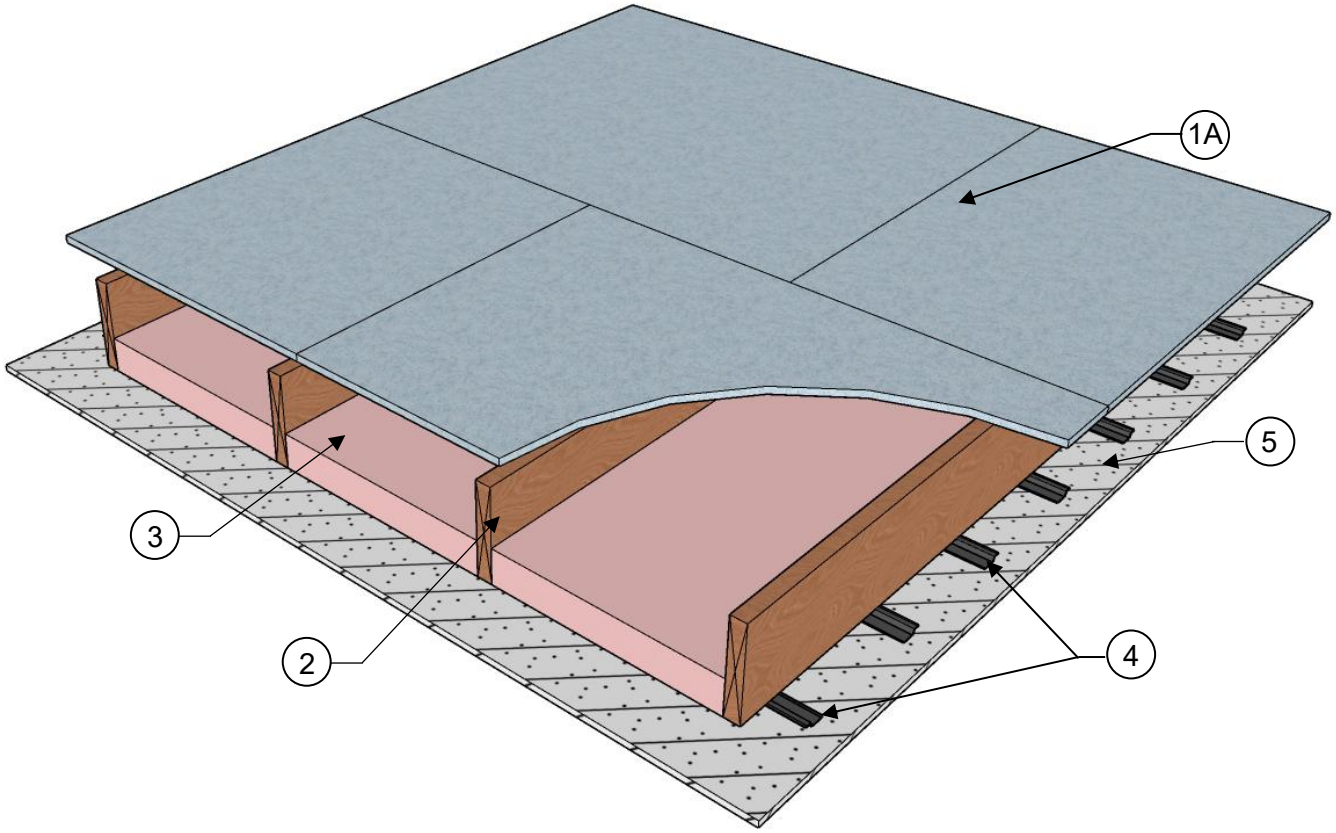
**Standard:** ASTM E119 (UL 263) / CAN/ULC-S101

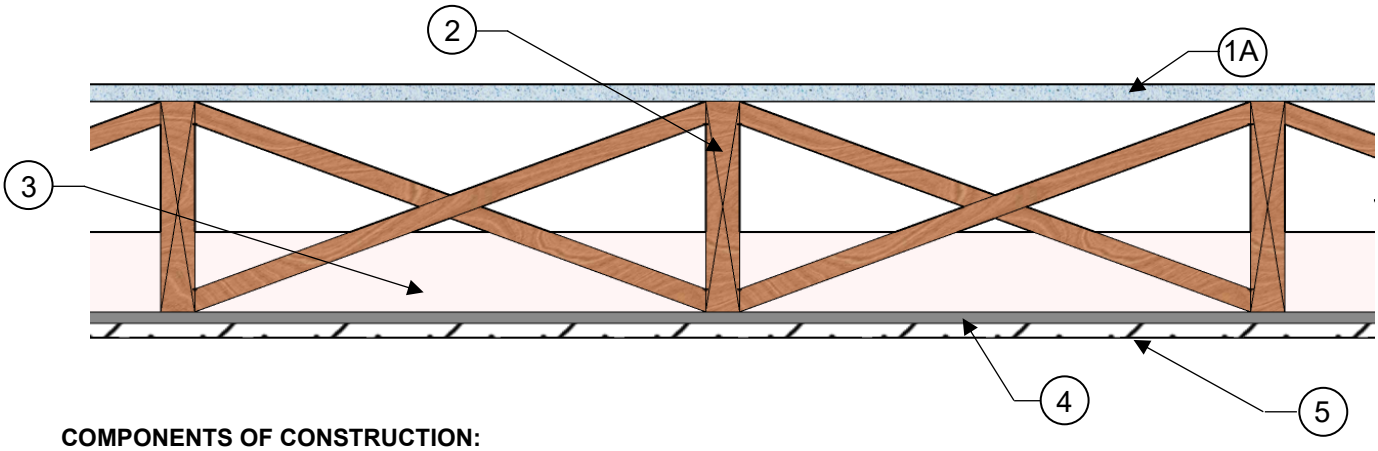
**Assembly Type:** Floor/Ceiling (Unrestrained)

**Assembly Rating:** 1-Hour

**Load:** Load Bearing (100% Design) – See Condition of Listing #8

*MOS = Magnesium Oxide Sheathing*






**COMPONENTS OF CONSTRUCTION:**

| ITEM NO. | COMPONENTS | MATERIALS |
|---|---|---|
| 1 | **Flooring System**<br><br>**Use either:**<br>• **"A" Only**<br>• **"B1" and "B2"**<br>• **"A" and "B2"** | A – ¾-inch INNOVATION MgO™ Subfloor Panels installed with long edges perpendicular to the framing members with end joints staggered. ¾-inch INNOVATION MgO™ Subfloor Panels must be secured along each framing member using 2-inch (50.8 mm) long 6D ring shank nails, spaced a maximum 12-inches (304.8 mm) on center in the field of the panels and spaced a maximum 6-inches (152.4 mm) on center along the edges of the panel. Fasteners must not be placed closer than 1-inch (25.4 mm) from all panel edges and no closer than 2-inches (50.8 mm) from panel corners.<br><br>B1 – Subfloor Sheathing – Minimum 23/32-inch (18.3 mm) thick Tongue & Groove wood structural panel subfloor panels installed with long edge perpendicular to the framing members with end joints staggered. Panels must be secured to the framing members using 2-inch (50.8 mm) long 6D ring shank nails, spaced a maximum 12-inches (304.8 mm) on center along each framing member.<br><br>B2 - Underlayment – ½-inch INNOVATION MgO™ Floor Panels installed perpendicular to framing with board edges staggered a minimum of 4-inches (101.6 mm) between subfloor and ½-inch INNOVATION MgO™ Floor Panels. ½-inch INNOVATION MgO™ Floor Panel end joints must be centered over the framing members and staggered, at minimum one joist cavity from the subfloor sheathing. ½-inch INNOVATION MgO™ Floor Panels must be fastened to the top of the subfloor with minimum 2 ½-inch (63.5 mm) long 6D ring shank nails, spaced a maximum 12-inches (304.8 mm) along each framing member. Underlayment fasteners must be staggered from the subfloor fasteners and must not be placed closer than 1-inch (25.4 mm) from all panel edges and no closer than 2-inches (50.8 mm) from panel corners. |
| 2 | **Floor Framing** | Minimum 2-inch by 10-inch (50.8 mm by 254 mm) wood joists spaced maximum 24-inch (610 mm) on center. Cross bridging minimum 1-inch by 3-inch (25.4 mm by 76.2 mm) or minimum 2-inch by 10-inch (50.8 mm by 254 mm) solid blocking.<br><br>Note: See Condition of Listing Items 8 and 9 of ESL-1610. |
| 3 | **Insulation** | Minimum 3 ½-inch (88.9 mm) thick, Class A fiberglass batt insulation or non-combustible mineral wool batt insulation complying with Type I per ASTM C665, draped over the resilient channels within each stud cavity. |
| 4 | **Furring Type (Resilient Channel)** | ½-inch (12.7 mm) deep, minimum 25-gauge (18 mil) galvanized steel resilient channel installed perpendicular to framing members and secured to the underside of the framing members using 1 ⅝-inch (41.3 mm) long No. 6 Type W bugle-head screws. The channels must be spaced a maximum 12-inches (304.8 mm) on center. The channels must be overlapped a minimum of 4-inches (101.6) at splices. Additional channels must be installed 3-inches (76.2 mm) from ceiling membrane board end joints and secured to adjacent framing members. |
| 5 | **Ceiling Membrane**<br><br>**Use either A through F** | A – American Gypsum Company LLC FireBloc® Type C Gypsum Board<br>B – CertainTeed Gypsum, Inc. CertainTeed® Type C Gypsum Board<br>C – National Gypsum Company GoldBond® Fire-Shield C™ Gypsum Board<br>D – Georgia-Pacific Gypsum LLC ToughRock® Fireguard C® Gypsum Board<br>E – United States Gypsum Company (USG) Sheetrock® Brand FireCode C Gypsum Board<br>F – PABCO® Gypsum FLAME CURB® Type C Gypsum Board<br><br>One layer of minimum ⅝-inch (15.9 mm) thick, Type C Gypsum Board must be installed with long dimension perpendicular to resilient channels with end joints staggered a minimum of 2-feet (609.6 mm). Gypsum board must be secured to channels using minimum 1 ¼-inch (31.8 mm) long No. 6 Type S bugle-head steel drywall screws spaced 8-inches (203.2 mm) on center. Fasteners along the long edge of panel are spaced 1-inch (25.4mm) away from the edge, and 3-inches (76.2 mm) from the butt joints into the resilient channel at the end of the panel. All panel edge joints must be treated with two coats of joint compound with nominal 2-inch (50.8 mm) wide paper tape embedded in the first layer of compound over all joints. All fastener heads must be covered with two layers of joint compound. |

For **SI:** 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 lbs./ft$^3$ = 16.01 kg/m$^3$.

# ICC Design No. MOS-1610-10

**ESL-1610**

*Reissued July 2025*
*Revised October 2025*
*This listing is subject to renewal July 2026.*

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**Applicant:** US MGO COMPANY, LLC

**Product:** ¾-INCH INNOVATION MGO™ SUBFLOOR PANELS and ½-INCH INNOVATION MGO™ FLOOR PANELS

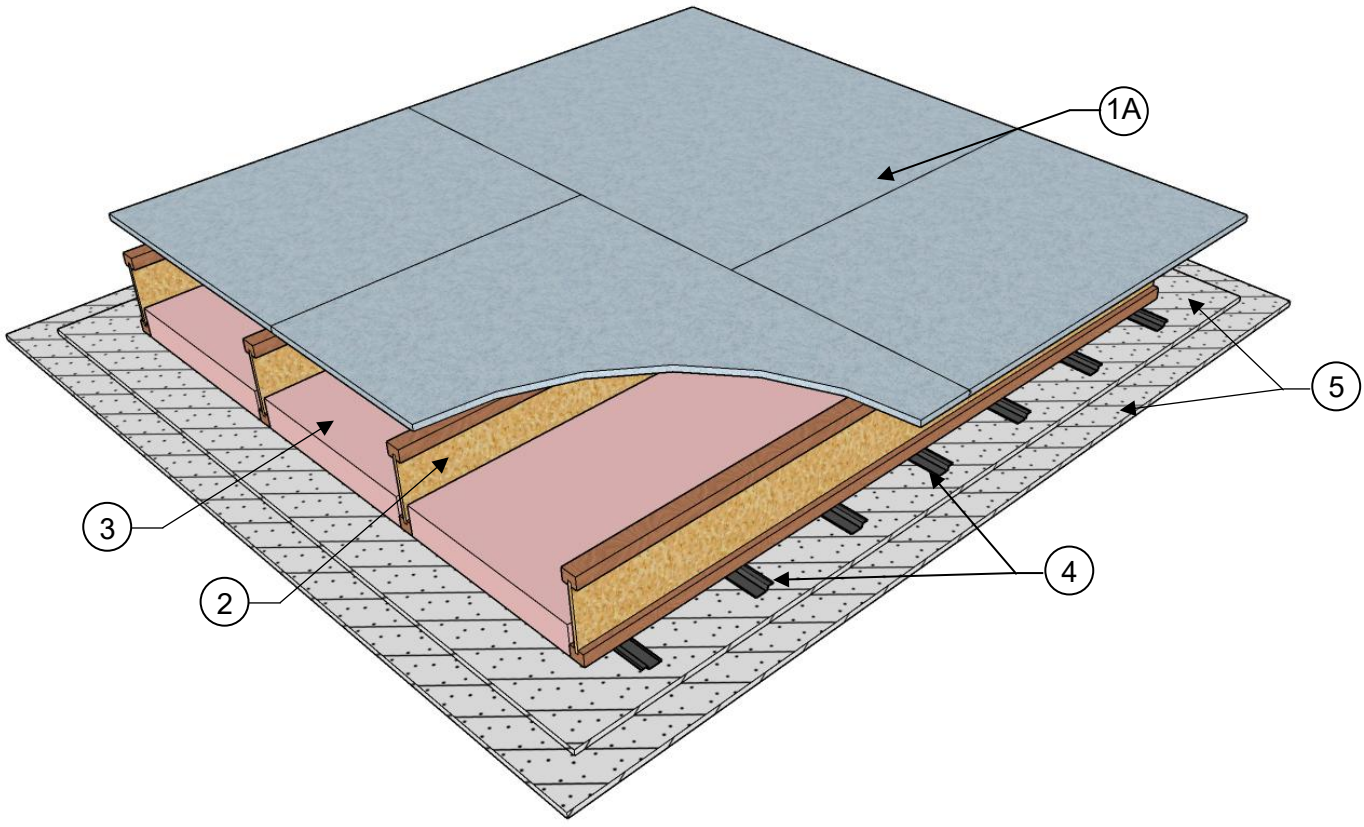
**Standard:** ASTM E119 (UL 263) / CAN/ULC-S101

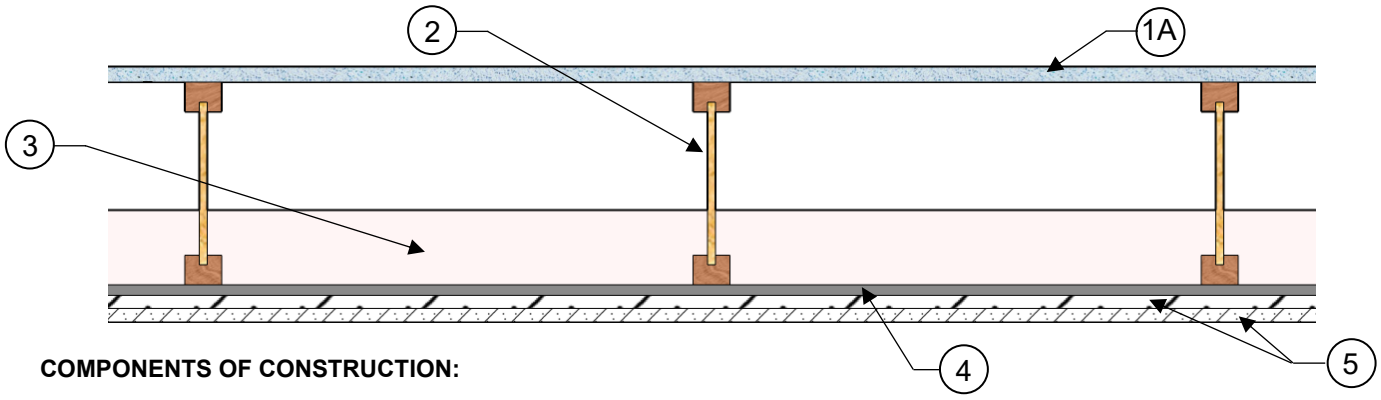
**Assembly Type:** Floor/Ceiling (Unrestrained)

**Assembly Rating:** 1-Hour

**Load:** Load Bearing (100% Design) – See Condition of Listing Item #8

*MOS = Magnesium Oxide Sheathing*






**COMPONENTS OF CONSTRUCTION:**

| ITEM NO. | COMPONENTS | MATERIALS |
|---|---|---|
| 1 | **Flooring System**<br><br>**Use either:**<br>• **"A" Only**<br>• **"B1" and "B2"**<br>• **"A" and "B2"** | A – ¾-inch INNOVATION MgO™ Subfloor Panels installed with long edges perpendicular to the framing members with end joints staggered. ¾-inch INNOVATION MgO™ Subfloor Panels must be secured along each framing member using 2-inch (50.8 mm) long 6D ring shank nails, spaced a maximum 12-inches (304.8 mm) on center in the field of the panels and spaced a maximum 6-inches (152.4 mm) on center along the edges of the panel. Fasteners must not be placed closer than 1-inch (25.4 mm) from all panel edges and no closer than 2-inches (50.8 mm) from panel corners.<br><br>B1 – Subfloor Sheathing – Minimum 23/32-inch (18.3 mm) thick Tongue & Groove wood structural panel subfloor panels installed with long edge perpendicular to the framing members with end joints staggered. Panels must be secured to the framing members using 2-inch (50.8 mm) long 6D ring shank nails, spaced a maximum 12-inches (304.8 mm) on center along each framing member.<br><br>B2 - Underlayment – ½-inch INNOVATION MgO™ Floor Panels installed perpendicular to framing with board edges staggered a minimum of 4-inches (101.6 mm) between subfloor and ½-inch INNOVATION MgO™ Floor Panels. ½-inch INNOVATION MgO™ Floor Panel end joints must be centered over the framing members and staggered, at minimum one joist cavity from the subfloor sheathing. ½-inch INNOVATION MgO™ Floor Panels must be fastened to the top of the subfloor with minimum 2 ½-inch (63.5 mm) long 6D ring shank nails, spaced a maximum 12-inches (304.8 mm) along each framing member. Underlayment fasteners must be staggered from the subfloor fasteners and must not be placed closer than 1-inch (25.4 mm) from all panel edges and no closer than 2-inches (50.8 mm) from panel corners. |
| 2 | **Floor Framing** | Minimum 9 ½-inch (241.3 mm) deep prefabricated wood I-joists spaced maximum 24-inch (609.6 mm) on center. Joists shall conform to ICC-ES ESR-1153 and must be installed in accordance with manufacturer's installation specifications.<br><br>Note: See Condition of Listing Items 8 and 9 of ESL-1610. |
| 3 | **Insulation** | Minimum 3 ½-inch (88.9 mm) thick, Class A fiberglass batt insulation or non-combustible mineral wool batt insulation complying with Type I per ASTM C665, draped over the resilient channels within each stud cavity. |
| 4 | **Furring Type (Resilient Channel)** | ½-inch (12.7 mm) deep, minimum 25-gauge (18 mil) galvanized steel resilient channel installed perpendicular to framing members and secured to the underside of the framing members using 1 ⅝-inch (41.3 mm) long No. 6 Type W bugle-head screws. The channels must be spaced a maximum 12-inches (304.8 mm) on center. The channels must be overlapped a minimum of 4-inches (101.6) at splices. Additional channels must be installed 3-inches (76.2 mm) from ceiling membrane board end joints and secured to adjacent framing members. |
| 5 | **Ceiling Membrane**<br><br>**Use either A through F** | A – American Gypsum Company LLC FireBloc® Type C Gypsum Board<br>B – CertainTeed Gypsum, Inc. CertainTeed® Type C Gypsum Board<br>C – National Gypsum Company GoldBond® Fire-Shield C™ Gypsum Board<br>D – Georgia-Pacific Gypsum LLC ToughRock® Fireguard C® Gypsum Board<br>E – United States Gypsum Company (USG) Sheetrock® Brand FireCode C Gypsum Board<br>F – PABCO® Gypsum FLAME CURB® Type C Gypsum Board<br><br>Two layers of minimum ⅝-inch (15.9 mm) thick, Type C Gypsum Board.<br><br>**Base layer of Gypsum Board** must be installed with long dimension perpendicular to resilient channels with end joints staggered a minimum of 2-feet (609.6 mm). Gypsum board must be secured to channels using minimum 1 ¼-inch (31.8 mm) long No. 6 Type S bugle-head steel drywall screws spaced 8-inches (203.2 mm) on center along the perimeter pf the panel and 12-inches (304.8 mm) on center in the field of the panel. Fasteners along the long edge of panel are spaced 1 ½-inch (38.1 mm) away from the edge, and 3-inches (76.2 mm) from the butt joints into the resilient channel at the end of the panel.<br><br>**Face layer of Gypsum Board** must be installed with long dimension perpendicular to resilient channels. Panel edge joints must be staggered 24-inches (609.6 mm) from base layer edge joints. Panel end joints must be staggered a minimum of 12-inches (304.8 mm) from base layer panel end joints. Base layer panels must be fastened to resilient channels using 2-inch (50.8 mm) long Type S bugle-head steel drywall screws spaced 8-inches (203.2 mm) on center along the perimeter and in the field of the face layer panels. Fasteners along the long edge of the panels must be spaced 1 ½-inch (38.1 mm) from panel edge. End |

| ITEM NO. | COMPONENTS | MATERIALS |
|---|---|---|
| | | joints of the face layer panels must be fastened using 1 ½-inch (38.1 mm) long Type G screws spaced 8-inches (203.2 mm) on center and spaced 1 ½-inch (38.1 mm) from panel ends.<br><br>All face layer gypsum board edge joints must be treated with two coats of joint compound with nominal 2-inch (50.8 mm) wide paper tape embedded in the first layer of compound over all joints. All fastener heads must be covered with two layers of joint compound. |

For **SI:** 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 lbs./ft$^3$ = 16.01 kg/m$^3$.

# ICC Design No. MOS-1610-11

**ESL-1610**

*Reissued July 2025*
*Revised October 2025*
*This listing is subject to renewal July 2026.*



**Applicant:** US MGO COMPANY, LLC

**Product:** ¾-INCH INNOVATION MGO™ SUBFLOOR PANELS and ½-INCH INNOVATION MGO™ FLOOR PANELS

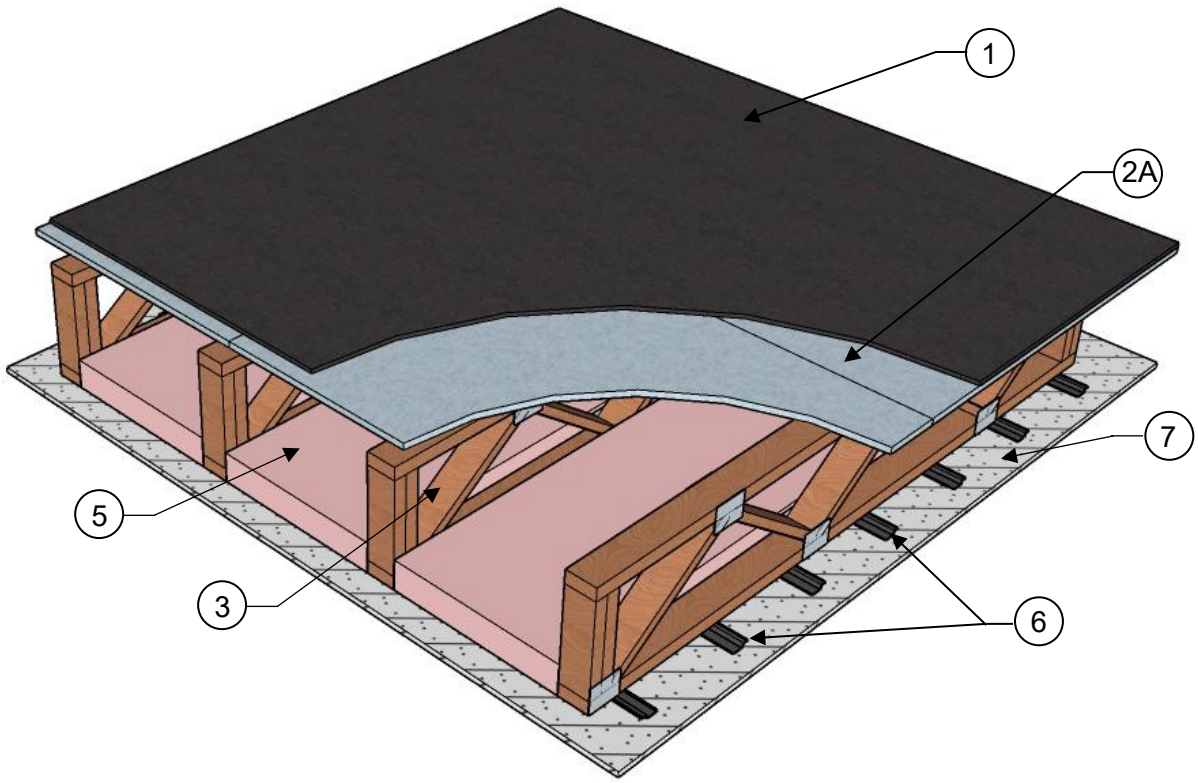
**Standard:** ASTM E119 (UL 263) / CAN/ULC-S101

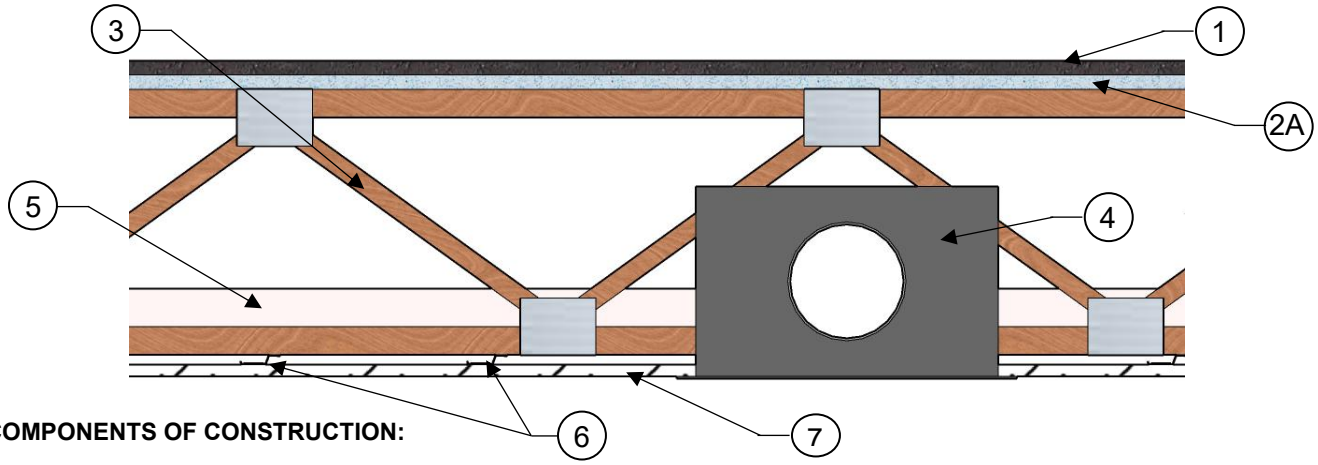
**Assembly Type:** Roof/Ceiling (Unrestrained)

**Assembly Rating:** 1-Hour

**Load:** Load Bearing (100% Design) – See Condition of Listing Item #8

*MOS = Magnesium Oxide Sheathing*






**COMPONENTS OF CONSTRUCTION:**

| ITEM NO. | COMPONENTS | MATERIALS |
|---|---|---|
| 1 | **Roof Covering** | Any Class A, B, or C roof covering installed in accordance with manufacturer's published installation instructions. |
| 2 | **Roof Sheathing**<br><br>**Use either:**<br>• **"A" Only**<br>• **"B1" and "B2"**<br>• **"A" and "B2"** | A – ¾-inch MgO™ Subfloor Panels installed with long edges perpendicular to the framing members with end joints staggered. ¾-inch INNOVATION MgO™ Subfloor Panels must be secured along each framing member using 2-inch (50.8 mm) long 6D ring shank nails, spaced a maximum 12-inches (304.8 mm) on center in the field of the panels and spaced a maximum 6-inches (152.4 mm) on center along the edges of the panel. Fasteners must not be placed closer than 1-inch (25.4 mm) from all panel edges and no closer than 2-inches (50.8 mm) from panel corners.<br><br>B1 – Subfloor Sheathing – Minimum 23/32-inch (18.3 mm) thick Tongue & Groove wood structural panel subfloor panels installed with long edge perpendicular to the framing members with end joints staggered. Panels must be secured to the framing members using 2-inch (50.8 mm) long 6D ring shank nails, spaced a maximum 12-inches (304.8 mm) on center along each framing member.<br><br>B2 - Underlayment – ½-inch INNOVATION MgO™ Floor Panels installed perpendicular to framing with board edges staggered a minimum of 4-inches (101.6 mm) between subfloor and ½-inch INNOVATION MgO™ Floor Panels. ½-inch INNOVATION MgO™ Floor Panel end joints must be centered over the framing members and staggered, at minimum one joist cavity from the subfloor sheathing. ½-inch INNOVATION MgO™ Floor Panels must be fastened to the top of the subfloor with minimum 2 ½-inch (63.5 mm) long 6D ring shank nails, spaced a maximum 12-inches (304.8 mm) along each framing member. Underlayment fasteners must be staggered from the subfloor fasteners and must not be placed closer than 1-inch (25.4 mm) from all panel edges and no closer than 2-inches (50.8 mm) from panel corners. |
| 3 | **Roof Framing** | 18-inch (457.2 mm) deep parallel chord open web wood trusses fabricated from nominal 2x4 lumber. Truss members secured together with minimum 20-gauge (37.5 mils) galvanized steel plates, spaced maximum 24-inch (610 mm) on center. Where constructed with the optional ceiling radiation damper (Item 3), the minimum depth for the trusses must be 18-inches (457.2 mm). When constructed without the optional ceiling radiation damper (Item 3), the minimum depth for the trusses must be 12-inches (304.8 mm).<br><br>Note: See Condition of Listing Items 8 and 9 of ESL-1610. |
| 4 | **Ceiling Radiation Damper (Optional)** | For use with minimum 18-inch (457.2 mm) deep open web wood trusses. Damper must be UL 555C listed. Damper must not exceed a maximum height of 14-inches (355.6 mm), with a maximum nominal area 324-inches$^2$ (2090.3 cm$^2$). The maximum dimension for any width must not exceed 18-inches (457.2 mm). A steel grille is installed per the damper manufacturer's installation instructions. The ceiling damper is to be connected to a Class 0 or Class 1, insulated air duct installed per the duct manufacturer's installation instructions. |
| 5 | **Insulation** | Minimum 3 ½-inch (88.9 mm) thick, Class A fiberglass batt insulation or non-combustible mineral wool batt insulation complying with Type I per ASTM C665, draped over the resilient channels within each stud cavity. |
| 6 | **Furring Type (Resilient Channel)** | ½-inch (12.7 mm) deep, minimum 25-gauge (18 mil) galvanized steel resilient channel installed perpendicular to framing members and secured to the underside of the framing members using 1 ¼-inch (31.8 mm) long No. 6 Type W bugle-head screws. The channels must be spaced a maximum 12-inches (304.8 mm) on center. The channels must be overlapped a minimum of 4-inches (101.6) at splices. Additional channels must be installed 3-inches (76.2 mm) from ceiling membrane board end joints and secured to adjacent framing members. |
| 7 | **Ceiling Membrane**<br><br>**Use either A through F** | A – American Gypsum Company LLC FireBloc® Type C Gypsum Board<br>B – CertainTeed Gypsum, Inc. CertainTeed® Type C Gypsum Board<br>C – National Gypsum Company GoldBond® Fire-Shield C™ Gypsum Board<br>D – Georgia-Pacific Gypsum LLC ToughRock® Fireguard C® Gypsum Board<br>E – United States Gypsum Company (USG) Sheetrock® Brand FireCode C Gypsum Board<br>F – PABCO® Gypsum FLAME CURB® Type C Gypsum Board<br><br>One layer of minimum ⅝-inch (15.9 mm) thick, Type C Gypsum Board must be installed with long dimension perpendicular to resilient channels with end joints staggered a minimum of 2-feet (609.6 mm). Gypsum board must be secured to channels using minimum 1 ¼-inch (31.8 mm) long No. 6 Type S bugle-head steel drywall screws spaced 8-inches (203.2 mm) on center. Fasteners along the long edge of panel are spaced |

| ITEM NO. | COMPONENTS | MATERIALS |
|---|---|---|
| | | 1-inch (25.4mm) away from the edge, and 3-inches (76.2 mm) from the butt joints into the resilient channel at the end of the panel. All panel edge joints must be treated with two coats of joint compound with nominal 2-inch (50.8 mm) wide paper tape embedded in the first layer of compound over all joints. All fastener heads must be covered with two layers of joint compound. |

For **SI:** 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 lbs./ft$^3$ = 16.01 kg/m$^3$.

# ICC Design No. MOS-1610-12

**ESL-1610**

*Reissued July 2025*
*Revised October 2025*
*This listing is subject to renewal July 2026.*

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**Applicant:** US MGO COMPANY, LLC

**Product:** ¾-INCH INNOVATION MGO™ SUBFLOOR PANELS and ½-INCH INNOVATION MGO™ FLOOR PANELS

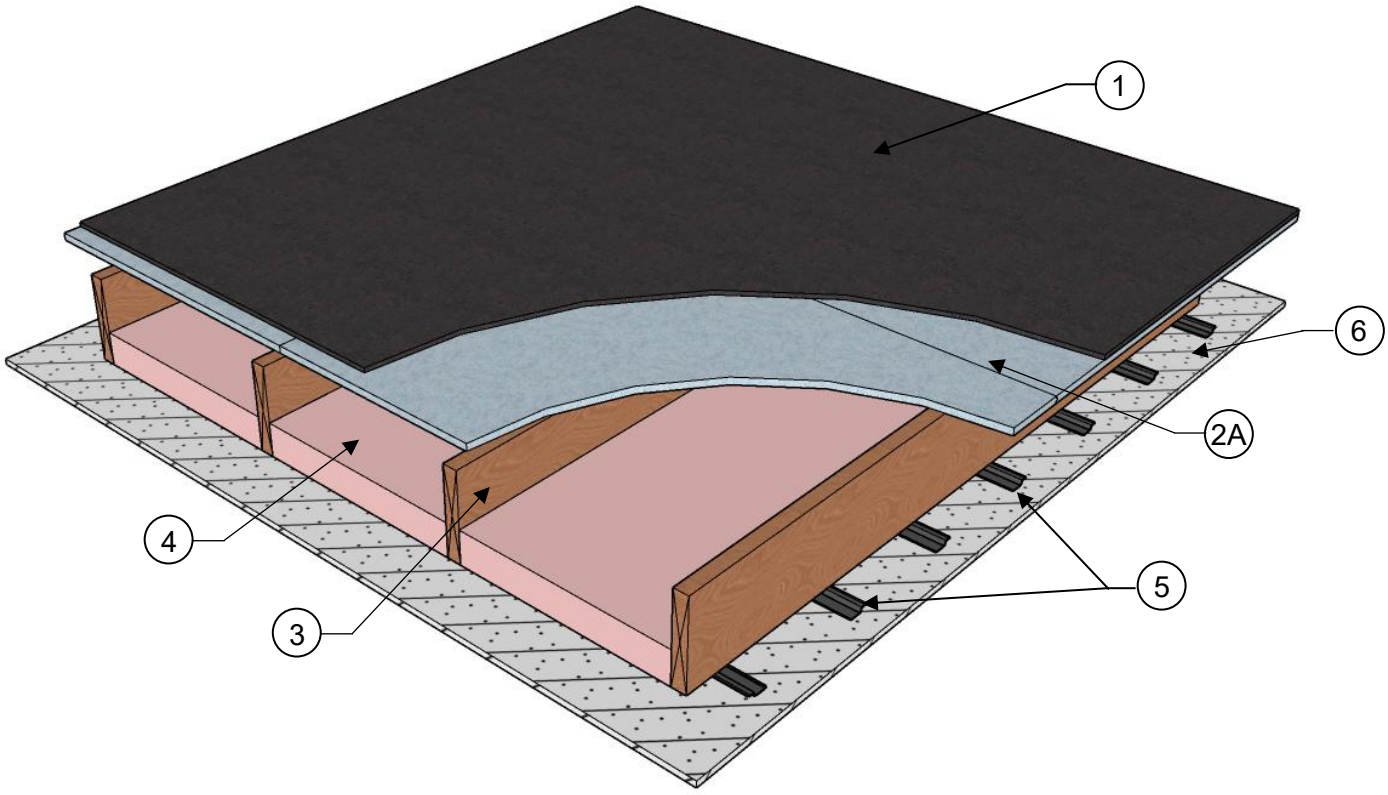
**Standard:** ASTM E119 (UL 263) / CAN/ULC-S101

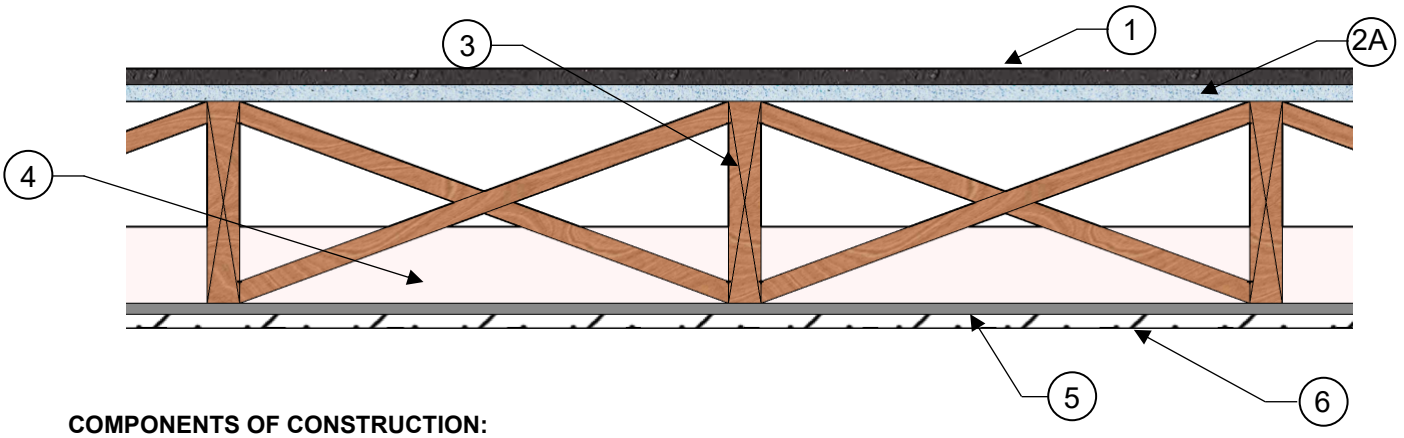
**Assembly Type:** Roof/Ceiling (Unrestrained)

**Assembly Rating:** 1-Hour

**Load:** Load Bearing (100% Design) – See Condition of Listing Item #8

*MOS = Magnesium Oxide Sheathing*






**COMPONENTS OF CONSTRUCTION:**

| ITEM NO. | COMPONENTS | MATERIALS |
|---|---|---|
| 1 | **Roof Covering** | Any Class A, B, or C roof covering installed in accordance with manufacturer's published installation instructions. |
| 2 | **Roof Sheathing**<br><br>**Use either:**<br>• **"A" Only**<br>• **"B1" and "B2"**<br>• **"A" and "B2"** | A – ¾-inch INNOVATION MgO™ Subfloor Panels installed with long edges perpendicular to the framing members with end joints staggered. ¾-inch INNOVATION MgO™ Subfloor Panels must be secured along each framing member using 2-inch (50.8 mm) long 6D ring shank nails, spaced a maximum 12-inches (304.8 mm) on center in the field of the panels and spaced a maximum 6-inches (152.4 mm) on center along the edges of the panel. Fasteners must not be placed closer than 1-inch (25.4 mm) from all panel edges and no closer than 2-inches (50.8 mm) from panel corners.<br><br>B1 – Subfloor Sheathing – Minimum 23/32-inch (18.3 mm) thick Tongue & Groove wood structural panel subfloor panels installed with long edge perpendicular to the framing members with end joints staggered. Panels must be secured to the framing members using 2-inch (50.8 mm) long 6D ring shank nails, spaced a maximum 12-inches (304.8 mm) on center along each framing member.<br><br>B2 - Underlayment – ½-inch INNOVATION MgO™ Floor Panels installed perpendicular to framing with board edges staggered a minimum of 4-inches (101.6 mm) between subfloor and ½-inch INNOVATION MgO™ Floor Panels. ½-inch INNOVATION MgO™ Floor Panel end joints must be centered over the framing members and staggered, at minimum one joist cavity from the subfloor sheathing. ½-inch INNOVATION MgO™ Floor Panels must be fastened to the top of the subfloor with minimum 2 ½-inch (63.5 mm) long 6D ring shank nails, spaced a maximum 12-inches (304.8 mm) along each framing member. Underlayment fasteners must be staggered from the subfloor fasteners and must not be placed closer than 1-inch (25.4 mm) from all panel edges and no closer than 2-inches (50.8 mm) from panel corners. |
| 3 | **Roof Framing** | Minimum 2-inch by 10-inch (50.8 mm by 254 mm) wood joists spaced maximum 24-inch (610 mm) on center. Cross bridging minimum 1-inch by 3-inch (25.4 mm by 76.2 mm) or minimum 2-inch by 10-inch (50.8 mm by 254 mm) solid blocking.<br><br>Note: See Condition of Listing Items 8 and 9 of ESL-1610. |
| 4 | **Insulation** | Minimum 3 ½-inch (88.9 mm) thick, Class A fiberglass batt insulation or non-combustible mineral wool batt insulation complying with Type I per ASTM C665, draped over the resilient channels within each stud cavity. |
| 5 | **Furring Type (Resilient Channel)** | ½-inch (12.7 mm) deep, minimum 25-gauge (18 mil) galvanized steel resilient channel installed perpendicular to framing members and secured to the underside of the framing members using 1 ⅝-inch (41.3 mm) long No. 6 Type W bugle-head screws. The channels must be spaced a maximum 12-inches (304.8 mm) on center. The channels must be overlapped a minimum of 4-inches (101.6) at splices. Additional channels must be installed 3-inches (76.2 mm) from ceiling membrane board end joints and secured to adjacent framing members. |
| 6 | **Ceiling Membrane**<br><br>**Use either A through F** | A – American Gypsum Company LLC FireBloc® Type C Gypsum Board<br>B – CertainTeed Gypsum, Inc. CertainTeed® Type C Gypsum Board<br>C – National Gypsum Company GoldBond® Fire-Shield C™ Gypsum Board<br>D – Georgia-Pacific Gypsum LLC ToughRock® Fireguard C® Gypsum Board<br>E – United States Gypsum Company (USG) Sheetrock® Brand FireCode C Gypsum Board<br>F – PABCO® Gypsum FLAME CURB® Type C Gypsum Board<br><br>One layer of minimum ⅝-inch (15.9 mm) thick, Type C Gypsum Board must be installed with long dimension perpendicular to resilient channels with end joints staggered a minimum of 2-feet (609.6 mm). Gypsum board must be secured to channels using minimum 1 ¼-inch (31.8 mm) long No. 6 Type S bugle-head steel drywall screws spaced 8-inches (203.2 mm) on center. Fasteners along the long edge of panel are spaced 1-inch (25.4mm) away from the edge, and 3-inches (76.2 mm) from the butt joints into the resilient channel at the end of the panel. All panel edge joints must be treated with two coats of joint compound with nominal 2-inch (50.8 mm) wide paper tape embedded in the first layer of compound over all joints. All fastener heads must be covered with two layers of joint compound. |

For **SI:** 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 lbs./ft$^3$ = 16.01 kg/m$^3$.

# ICC Design No. MOS-1610-13

**ESL-1610**

*Reissued July 2025*
*Revised October 2025*
*This listing is subject to renewal July 2026.*

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**Applicant:** US MGO COMPANY, LLC

**Product:** ¾-INCH INNOVATION MGO™ SUBFLOOR PANELS and ½-INCH INNOVATION MGO™ FLOOR PANELS

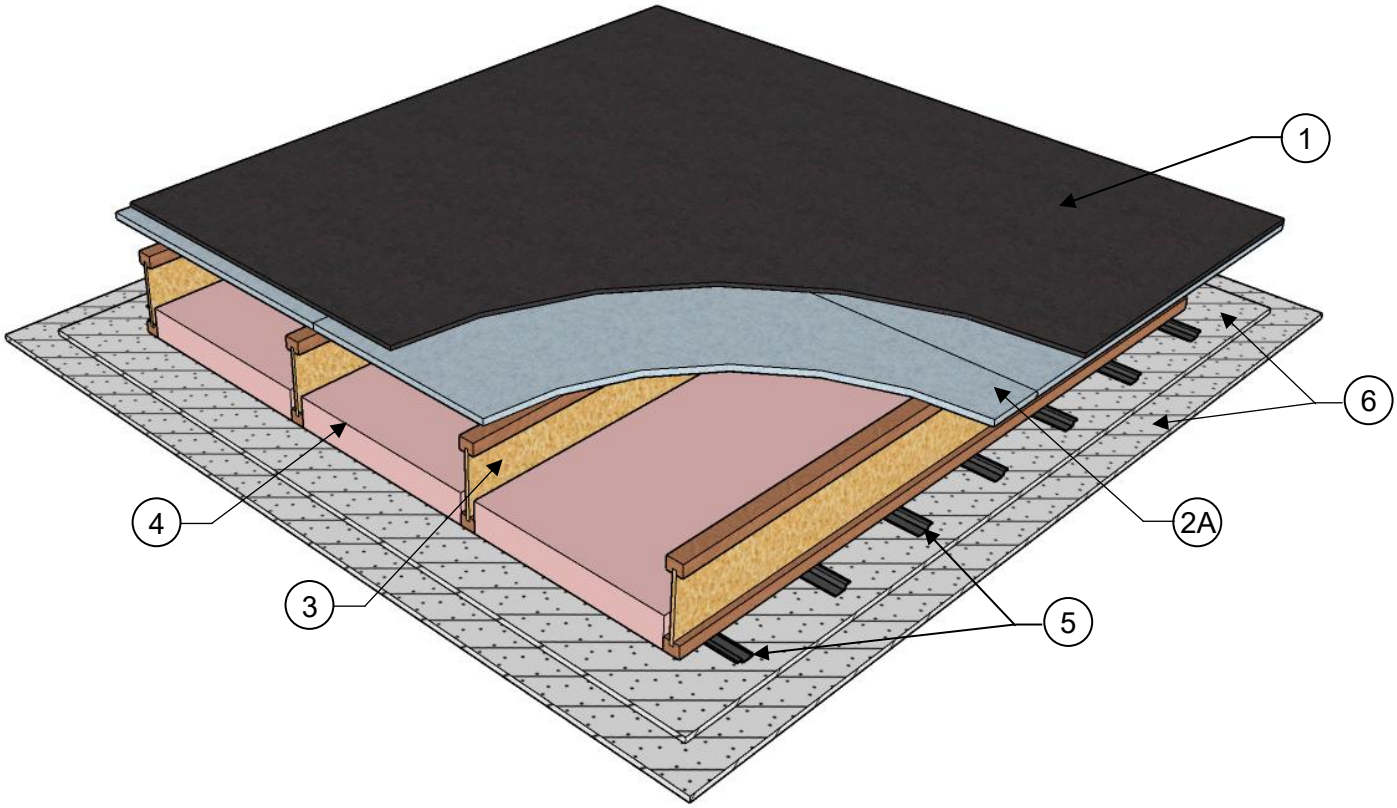
**Standard:** ASTM E119 (UL 263) / CAN/ULC-S101

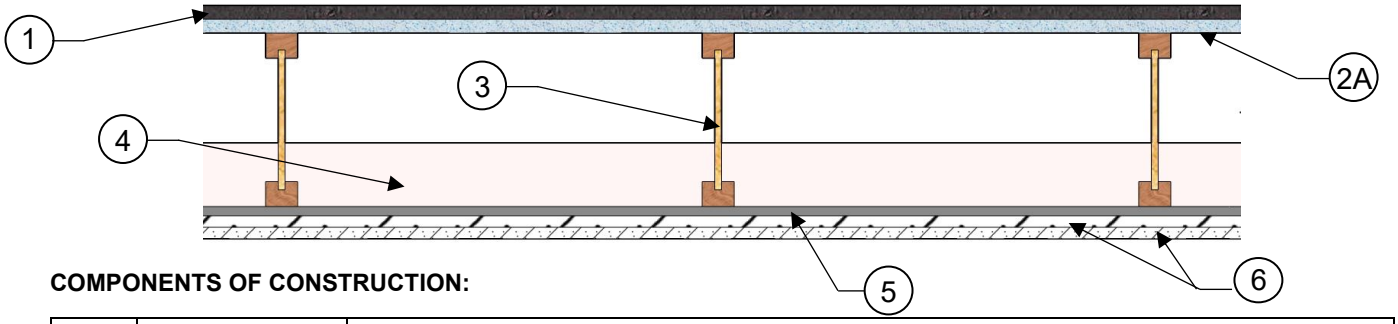
**Assembly Type:** Roof/Ceiling (Unrestrained)

**Assembly Rating:** 1-Hour

**Load:** Load Bearing (100% Design) – See Condition of Listing Item #8

*MOS = Magnesium Oxide Sheathing*






**COMPONENTS OF CONSTRUCTION:**

| ITEM NO. | COMPONENTS | MATERIALS |
|---|---|---|
| 1 | **Roof Covering** | Any Class A, B, or C roof covering installed in accordance with manufacturer's published installation instructions. |
| 2 | **Roof Sheathing**<br><br>**Use either:**<br>• **"A" Only**<br>• **"B1" and "B2"**<br>• **"A" and "B2"** | A – ¾-inch INNOVATION MgO™ Subfloor Panels installed with long edges perpendicular to the framing members with end joints staggered. ¾-inch INNOVATION MgO™ Subfloor Panels must be secured along each framing member using 2-inch (50.8 mm) long 6D ring shank nails, spaced a maximum 12-inches (304.8 mm) on center in the field of the panels and spaced a maximum 6-inches (152.4 mm) on center along the edges of the panel. Fasteners must not be placed closer than 1-inch (25.4 mm) from all panel edges and no closer than 2-inches (50.8 mm) from panel corners.<br><br>B1 – Subfloor Sheathing – Minimum 23/32-inch (18.3 mm) thick Tongue & Groove wood structural panel subfloor panels installed with long edge perpendicular to the framing members with end joints staggered. Panels must be secured to the framing members using 2-inch (50.8 mm) long 6D ring shank nails, spaced a maximum 12-inches (304.8 mm) on center along each framing member.<br><br>B2 - Underlayment – ½-inch INNOVATION MgO™ Floor Panels installed perpendicular to framing with board edges staggered a minimum of 4-inches (101.6 mm) between subfloor and ½-inch INNOVATION MgO™ Floor Panels. ½-inch INNOVATION MgO™ Floor Panel end joints must be centered over the framing members and staggered, at minimum one joist cavity from the subfloor sheathing. ½-inch INNOVATION MgO™ Floor Panels must be fastened to the top of the subfloor with minimum 2 ½-inch (63.5 mm) long 6D ring shank nails, spaced a maximum 12-inches (304.8 mm) along each framing member. Underlayment fasteners must be staggered from the subfloor fasteners and must not be placed closer than 1-inch (25.4 mm) from all panel edges and no closer than 2-inches (50.8 mm) from panel corners. |
| 3 | **Roof Framing** | Minimum 9 ½-inch (241.3 mm) deep prefabricated wood I-joists spaced maximum 24-inch (609.6 mm) on center. Joists shall conform to ICC-ES ESR-1153 and must be installed in accordance with manufacturer's installation specifications.<br><br>Note: See Condition of Listing Items 8 and 9 of ESL-1610. |
| 4 | **Insulation** | Minimum 3 ½-inch (88.9 mm) thick, Class A fiberglass batt insulation or non-combustible mineral wool batt insulation complying with Type I per ASTM C665, draped over the resilient channels within each stud cavity. |
| 5 | **Furring Type (Resilient Channel)** | ½-inch (12.7 mm) deep, minimum 25-gauge (18 mil) galvanized steel resilient channel installed perpendicular to framing members and secured to the underside of the framing members using 1 ⅝-inch (41.3 mm) long No. 6 Type W bugle-head screws. The channels must be spaced a maximum 12-inches (304.8 mm) on center. The channels must be overlapped a minimum of 4-inches (101.6) at splices. Additional channels must be installed 3-inches (76.2 mm) from ceiling membrane board end joints and secured to adjacent framing members. |
| 6 | **Ceiling Membrane**<br><br>**Use either A through F** | A – American Gypsum Company LLC FireBloc® Type C Gypsum Board<br>B – CertainTeed Gypsum, Inc. CertainTeed® Type C Gypsum Board<br>C – National Gypsum Company GoldBond® Fire-Shield C™ Gypsum Board<br>D – Georgia-Pacific Gypsum LLC ToughRock® Fireguard C® Gypsum Board<br>E – United States Gypsum Company (USG) Sheetrock® Brand FireCode C Gypsum Board<br>F – PABCO® Gypsum FLAME CURB® Type C Gypsum Board<br><br>Two layers of minimum ⅝-inch (15.9 mm) thick, Type C Gypsum Board.<br><br>**Base layer of Gypsum Board** must be installed with long dimension perpendicular to resilient channels with end joints staggered a minimum of 2-feet (609.6 mm). Gypsum board must be secured to channels using minimum 1 ¼-inch (31.8 mm) long No. 6 Type S bugle-head steel drywall screws spaced 8-inches (203.2 mm) on center along the perimeter pf the panel and 12-inches (304.8 mm) on center in the field of the panel. Fasteners along the long edge of panel are spaced 1 ½-inch (38.1 mm) away from the edge, and 3-inches (76.2 mm) from the butt joints into the resilient channel at the end of the panel.<br><br>**Face layer of Gypsum Board** must be installed with long dimension perpendicular to resilient channels. Panel edge joints must be staggered 24-inches (609.6 mm) from base layer edge joints. Panel end joints must be staggered a minimum of 12-inches (304.8 mm) from base layer panel end joints. Base layer panels must be fastened to resilient channels using 2-inch (50.8 mm) long Type S bugle-head steel drywall screws spaced 8-inches (203.2 mm) on center along the perimeter and in the field of the face layer panels. Fasteners along the long edge of the panels must be spaced 1 ½-inch (38.1 mm) from panel edge. End joints of the face layer panels must be fastened using 1 ½-inch (38.1 mm) long Type G screws spaced 8-inches (203.2 mm) on center and spaced 1 ½-inch (38.1 mm) from panel ends. |

| ITEM NO. | COMPONENTS | MATERIALS |
|---|---|---|
| | | All face layer gypsum board edge joints must be treated with two coats of joint compound with nominal 2-inch (50.8 mm) wide paper tape embedded in the first layer of compound over all joints. All fastener heads must be covered with two layers of joint compound. |

For **SI:** 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 lbs./ft$^3$ = 16.01 kg/m$^3$.

# ICC Design No. MOS-1610-14

**ESL-1610**

*Reissued July 2025*
*Revised October 2025*
*This listing is subject to renewal July 2026.*

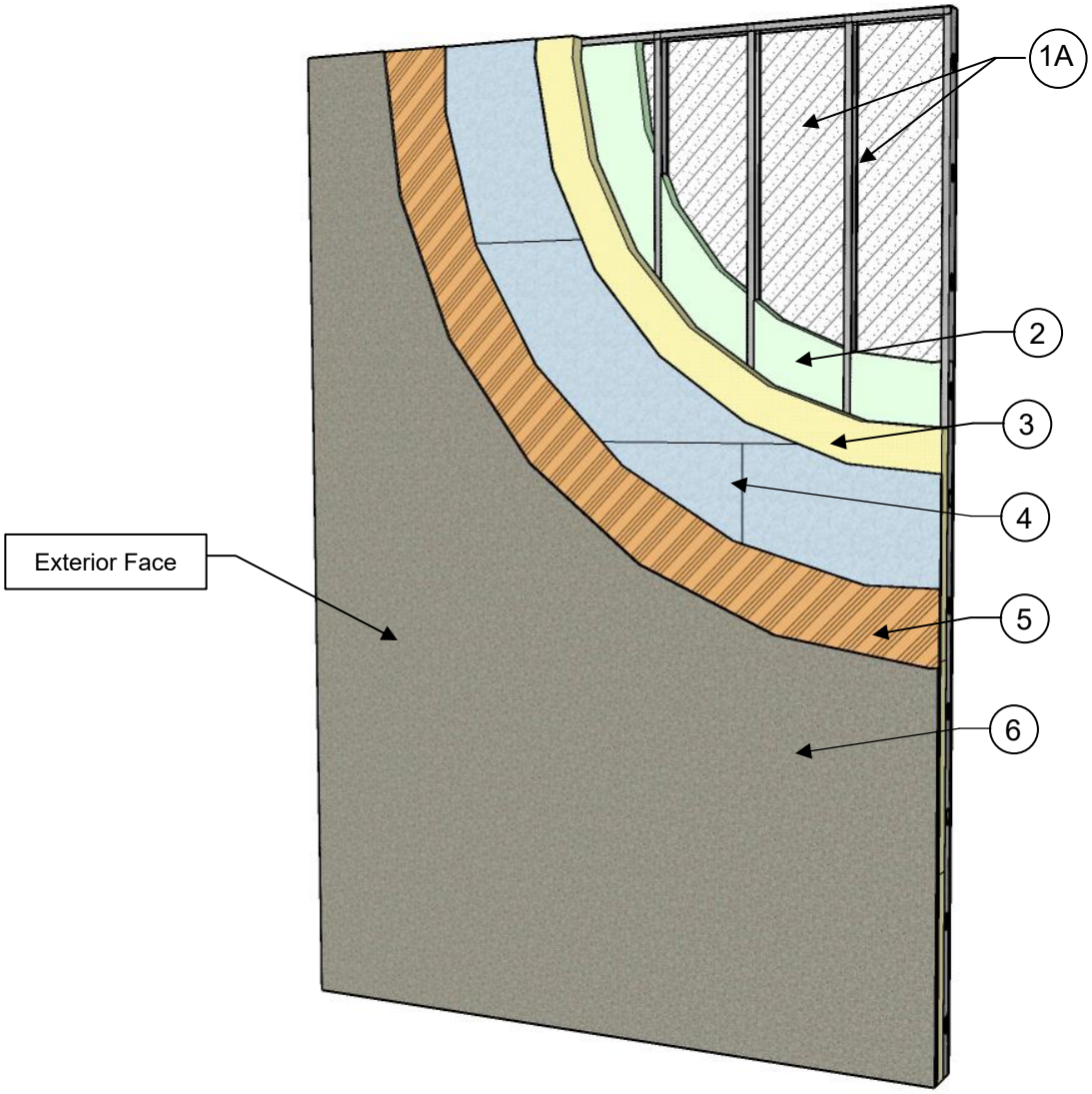


**Applicant:** US MGO COMPANY, LLC

**Product:** ½-INCH INNOVATION MGO™ WALL PANELS

**Standard:** NFPA 285

*MOS = Magnesium Oxide Sheathing*



**COMPONENTS OF CONSTRUCTION:**

| ITEM NO. | COMPONENTS | MATERIALS |
|---|---|---|
| 1 | **Base Wall System**<br><br>Use either A, B, or C | A – Cold-Formed Steel Studs (minimum 3 ⅝-inch deep, minimum 20-gauge (37.5 mils)), spaced maximum 24-inches on center, laterally braced every 4 feet vertically with (1) layer of minimum ⅝-inch (15.9 mm) thick Type X or Type C gypsum wallboard on the interior side of the wall.<br>B – Cast Concrete Walls<br>C – Concrete Masonry Walls |
| | **Floorline Firestopping (Not Shown)** | Non-combustible mineral wool safing (minimum density of 4 lbs./ft.$^3$) in each stud cavity and at each floor line. Mineral wool to be friction-fit or attached with metal z-clips into each stud cavity. For use with base wall system 1A. The depth of the mineral wool insulation must match the stud cavity depth. |
| 2 | **Base Wall Cavity Insulation[1]**<br><br>Use either A, B, C, D, or E | A – None<br>B – Non-combustible insulation complying with ASTM E136.<br>C – Mineral-fiber (faced or unfaced).<br>D – Fiberglass batt insulation, Class A (faced or unfaced).<br>E – Spray-applied foam plastic insulation, full stud depth or less thickness of Huntsman Building Solutions Heatlok® HFO Pro (Closed-Cell) applied to base wall system 1A, covering the width of the stud cavity. |
| 3 | **Exterior Insulation**<br><br>Use either A or B | A – Maximum 3 ½-inch (88.9 mm) thick (consisting of a single thickness or multiple thicknesses) Atlas Roofing Corporation AC Foam®-II, Atlas EnergyShield® Pro, Atlas EnergyShield® CGF Pro, or Atlas EnergyShield® XR.<br><br>B – Maximum 4 ½-inch (114.3 mm) thick (consisting of a single thickness or multiple thicknesses) Rmax Durasheath®, Rmax Thermasheath, Rmax TSX-8500, Rmax TSX-8510, Rmax ECOMAXci FR, and Rmax ECOMAXci FR White closed-cell, rigid polyisocyanurate foam core panels with various facers. |
| 4 | **Exterior Sheathing** | One layer of minimum ½-inch INNOVATION MgO™ Wall Panels (ESR-5418) must be installed directly over exterior insulation (Component #3). |
| 5 | **Water-Resistive Barrier (WRB)[2]** | WrapShield SA® Self-Adhered – VaproShield® |
| 6 | **Exterior Cladding/Finish – Use either A through K[3]**<br><br>Use A through H with a maximum 2-inch air gap (when applicable) between the exterior sheathing/WRB and the exterior cladding system.<br><br>Use I through K with a maximum 1 ½-inch air gap between the exterior sheathing/WRB and the exterior cladding system. | A - Brick – Standard nominal 4 inch (101.6 mm) thick clay brick with brick veneer anchors installed a maximum of 24 inches (609.6 mm) on center vertically along each stud. Anchors shall be installed according to the manufacturer's published installation techniques and shall be attached back to the studs.<br>B - Stucco – Minimum ¾ inch (19 mm) thick, three-coat exterior cement plaster and lath.<br>C - Thin-Set Brick or Stone Veneer – Minimum ¼ inch (6 mm) thick, thin brick or stone, complying with ASTM C1088, adhered to minimum ¾ inch (19 mm) thick three-coat exterior cement plaster and lath mortar bed.<br>D - Cast Concrete – Minimum 1 ½ inch (38 mm) thick, using any standard closed joint installation technique.<br>E - Concrete Masonry Units (CMU) – Minimum 2 inch (50.8 mm) thick, using any standard closed joint installation technique.<br>F - Natural Stone Veneer – Minimum 2 inch (50.8 mm) thick, using any standard open or closed joint installation technique.<br>G - Cast Artificial Stone – Minimum 1 ½ inch (38.1 mm) thick, complying with ICC-ES AC 51 using any standard installation technique.<br>H - Terra Cotta Cladding – Minimum 1 ¼ inch (32 mm) thick using any standard closed joint installation technique.<br>I - Uninsulated sheet metal building panels, including aluminum, zinc, steel, or copper, using any standard installation technique. Panels must have been successfully tested by the panel manufacturer and meets the requirements of the NFPA 285 test method. Installed using standard installation techniques. Evidence of testing in accordance with NFPA 285 and/or an ICC-ES report must be submitted to the local building official.<br>J - Fiber-cement lap siding – Minimum 1/4-inch-thick fiber-cement lap siding, complying with the requirements of ASTM C1186, Type A (or ISO 8336, Category A) and classified as noncombustible when tested in accordance with ASTM E136, using any standard closed joint installation in accordance with the manufacturer's published installation instructions.<br>K - Metal Composite Material (MCM) System – Use any MCM system that has been successfully tested by the panel manufacturer and meets the requirements of the NFPA 285 test method. Installed using standard installation techniques. Evidence of testing in accordance with NFPA 285 and/or an ICC-ES report must be submitted to the local building official. |
| | **Window Perimeter/ Opening Protection (Not Shown)[4] –** | Minimum 20-gauge (37.5 mils) thick steel stud framing around the perimeter of the window opening.<br><br>Minimum 24-gauge (23.9 mils) steel flashing around the inside perimeter of the opening spanning from the interior sheathing of the base wall and terminating at the leading edge of the exterior cladding system covering any openings or gaps present. |

For **SI:** 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 lbs./ft$^3$ = 16.01 kg/m$^3$.

Footnotes:
[1]Insulation must be approved by the local Authority Having Jurisdiction.
[2]Water-resistive barrier (WRB) is required to be installed over INNOVATION MgO™ Wall Panels for compliance with ESR-5418 and must be applied over the exterior sheathing in accordance with the manufacturer's published application instructions, and a current ICC-ES evaluation report (if applicable).
[3]Exterior Wall Covering system must be designed to handle applicable gravity and wind loads.
[4]Opening Protection options shown pertain to fire performance characteristics only. Requirements for opening flashing and waterproofing shall be in accordance with the manufacturer's published installation instructions.