ICC-ES Listing Report

ESL-1568

Issued March 2024

This listing is subject to renewal March 2025.

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

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

Product Certification System:

The ICC-ES product-certification system includes evaluating reports of tests of standard manufactured product, prepared by accredited testing laboratories and provided by the listee, to verify compliance with applicable codes and standards. The system also involves factory inspections, and assessment and surveillance of the listee's quality system.

Product: MAXTERRA™ 12 MM AND 16 MM THICK MAGNESIUM OXIDE PANELS

Listee: NEXGEN BUILDING PRODUCTS LLC

Evaluation: Maxterra™ 12 mm and 16 mm thick magnesium oxide panels were evaluated based on tested load bearing wall assemblies consisting of building-material components described in the Design Listings, tested in accordance with the following standards:

- ASTM E119-18B, Standard Test Methods for Fire Tests of Building Construction and Materials, ASTM International.
- UL 263-11 (with revisions through March 2018), Standard for Fire Tests of Building Construction and Materials, Underwriters Laboratories, Inc.

Findings: Evaluation of Maxterra™ 12 mm and 16 mm thick magnesium oxide panels as components of the assembly is based on testing in accordance with the applicable test method as referenced in each ICC Design No., and as referenced in the applicable sections of the following code editions:

- 2021 *International Building Code®* (IBC)
  Applicable Section: 703.2
- 2021 *International Residential Code®* (IRC)
  Applicable Section: R302

Identification:

1. The ICC-ES mark of conformity, electronic labeling, or the listing report number (ICC-ES ESL-1568) 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 Maxterra™ 12 mm and 16 mm thick magnesium oxide 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:

   NEXGEN BUILDING PRODUCTS LLC
   1904 MANATEE AVE WEST #300
   BRADENTON, FLORIDA 34205
   (855) 639-4361
   www.nexgenbp.com
   support@nexgenbp.com

Installation: The Maxterra™ 12 mm and 16 mm thick magnesium oxide panels must be installed in accordance with the NEXGEN Building Products LLC published installation instructions and applicable codes.

Conditions of Listing:

1. The listing report addresses only conformance with the standards and code sections noted above.
2. Approval of the product's use is the sole responsibility of the local code 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) in accordance with the NDS (National Design Specification for Wood Construction), unless noted otherwise. Sheathing was not considered in the calculation of the design loads.
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. 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 Tests Conducting in Accordance with ASTM E119) and the principles pertaining to the fire resistance rating of wall assemblies.
7. For an 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.
8. NEXGEN Building Products LLC's Maxterra™ 12 mm and 16 mm thick magnesium oxide panels are manufactured under a quality control program with inspections by ICC-ES.

ICC Design No. MOS-1568-04

ESL-1568

Issued March 2024

This listing is subject to renewal March 2025.

Applicant: NEXGEN BUILDING PRODUCTS LLC

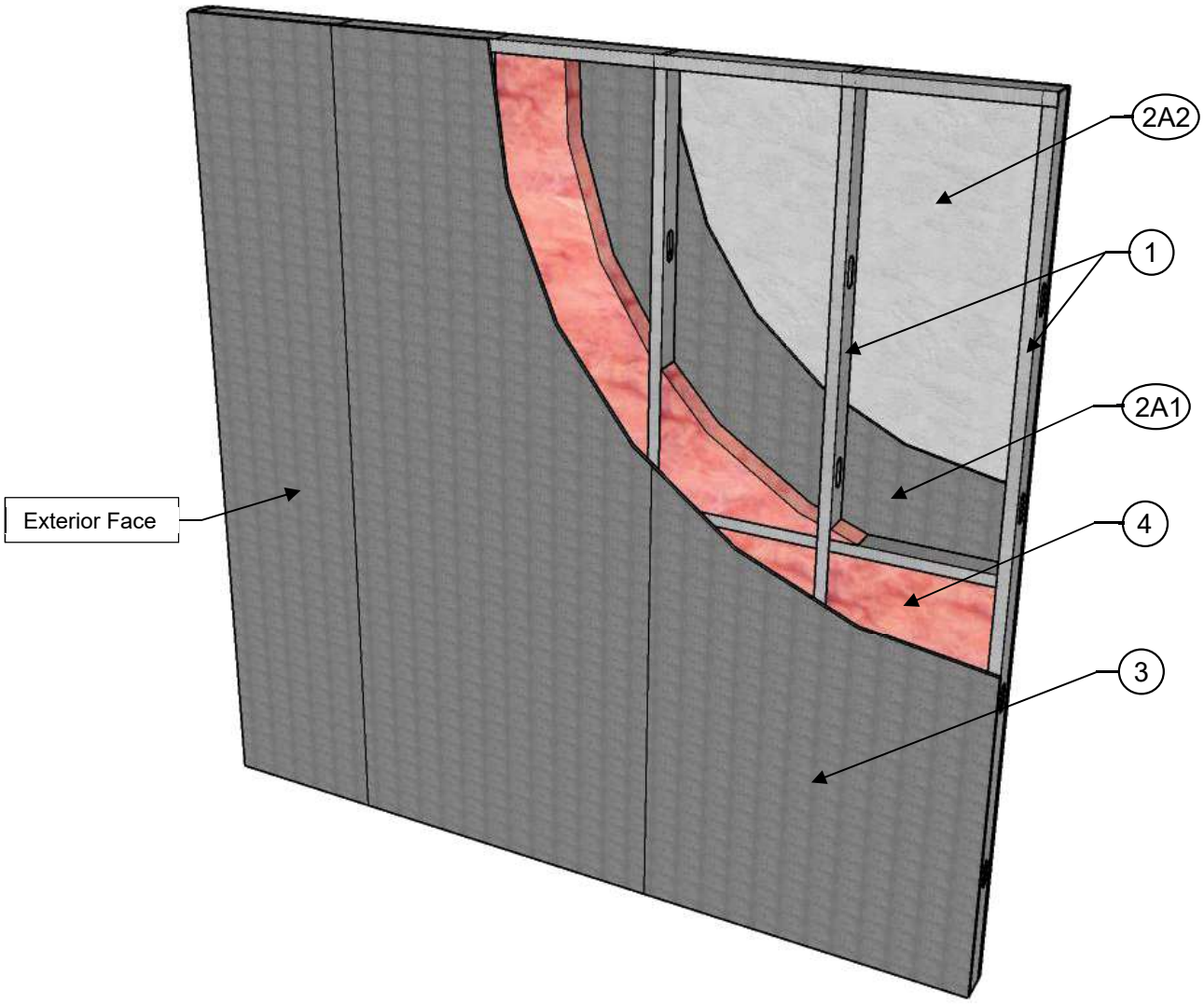
Product: MAXTERRA™ 12 MM AND 16 MM THICK MAGNESIUM OXIDE PANELS

Standard: ASTM E119 (UL 263)

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 38.5, spaced maximum 24 inches (609.6 mm) on center, with blocking 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. Full-depth blocking of minimum 16-gauge (62.5 mils) galvanized steel channel blocking, with 1 $^1/_2$-inch (38.1 mm) flanges and $^1/_4$-inch (6.4 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. Note: See Conditions of Listing Items 5 and 6 of ESL-1568.
2	**Interior Sheathing—** Use either A or B	**A — Interior Sheathing –** The interior sheathing shall incorporate the following components: **A1 – Maxterra™ 16 mm Panel (Base Layer) –** One layer of Maxterra™ 16 mm (0.63-inch) thick magnesium oxide panels, as the base layer, 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 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. Maxterra™ panels 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. Maxterra™ panel edge joints are permitted to be left uncovered without joint compound. Fastener heads are permitted to be left exposed. **A2 – Gypsum Wallboard (Face Layer) –** One layer of minimum $^5/_8$-inch (15.9 mm) Type X or Type C gypsum wallboard, complying with ASTM C1396, as the face layer, must be installed with vertical panel joints staggered from the base layer on the interior side of the wall assembly, and 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. 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 gypsum wallboard 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.
		B — Interior Sheathing – 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. The base layer must be secured to the framing using minimum 1$^5/_8$-inch (41.3 mm) long Type S screws spaced at 8 inches (203.2 mm) on center along the perimeter and in the field of the panel. 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. 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 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 Maxterra™ 12 mm (0.47-inch) thick magnesium oxide 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. Maxterra™ panels 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. Maxterra™ panel edge joints are permitted to be left uncovered without joint compound. Fastener heads are permitted to be left exposed.
4	**Cavity Insulation—** 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 mm) is friction-fit into each stud cavity. The insulation thickness must match the stud cavity depth. **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 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 Cladding (Not Shown)—**	Where the assembly is used as an exterior wall, any exterior cladding 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.