

ICC-ES Evaluation Report

ESR-5507

Issued November 2024

Revised April 2025

Subject to renewal November 2025

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DIVISION: 06 00 00 – WOOD, PLASTICS AND COMPOSITES

Section: 06 16 23 - Subflooring

REPORT HOLDER:

NEXGEN BUILDING PRODUCTS LLC



EVALUATION SUBJECT:

MAXTERRA[™] Fire Resistant Decorative Wall Panels



1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2024, 2021, 2018 and 2015 International Building Code® (IBC)
- 2024, 2021, 2018 and 2015 International Residential Code® (IRC)

Property evaluated:

- Durability
- Surface Burning Characteristics

2.0 USES

MAXTERRATM Fire Resistant Decorative Wall Panels are intended for use as an interior finish product on walls. The products are intended for use in Type V-B construction under the IBC and all construction types under the IRC.

3.0 DESCRIPTION

3.1 General:

MAXTERRATM Fire Resistant Decorative Wall Panels are nominal ³/₈-inch (9 mm), ½-inch (12 mm) and ⁵/₈-inch (16 mm) thick magnesium-oxide panels reinforced with multiple fiberglass mesh sheets. The panels are factory laminated with a veneer less than 0.036 inch (0.9 mm) thick to provide a multitude of different aesthetic finishes to achieve the desired appearance, such as marble, wood, solid colors, textured finishes, etc. Veneer options are composed of one of the following: High Pressure Laminate (HPL), Continuous Pressure Laminate (CPL), melamine paper, wood, polyvinylchloride (PVC), aluminum, cloth, or leather. The MAXTERRATM Fire Resistant Decorative Wall Panels are available in nominal 4-foot (1.22 m) widths at a nominal length of 8 feet (2.44 m), 10 feet (3.05 m) or 12 feet (3.66 m).

3.2 Surface Burning Characteristics:

The magnesium-oxide panels without the factory laminated veneers of the MAXTERRA™ Fire Resistant Decorative Wall Panels exhibit a flame spread index of 25 or less and a smoke developed index of 450 or less when tested in accordance with ASTM E84. The panels exhibit a Class A interior finish in accordance with Section 803.1.2 of the 2024, 2021 and 2018 IBC (Section 803.1.1 of the 2015 IBC). The factory-applied laminated veneer thickness falls under the exception of Section 803.2 of the IBC and is not require to comply with Section 803.1 of the IBC.

3.3 Physical Properties:

The flexural strength of MAXTERRA™ Fire Resistant Decorative Wall Panels exceeds the minimum average flexural strength of the boards exceeds the minimum average flexural strength of 580 psi (4000 kPa) in both dry and wet conditions, when tested in accordance with ASTM C1185.

The panels exhibit a humidified deflection less than 0.0639 inches (1.62 mm) humidified deflection when tested in accordance with ASTM C473.

The panel's change in length due to moisture is less than 0.20% in both the machine and cross machine direction based on a relative humidity change from 30 to 90 percent when tested in accordance with ASTM C1185.

The panel's nail head pull through capacity exceeds 125 lbs when tested in accordance ASTM D1037 when using a roofing nail with an 0.375-inch (9.5 mm) diameter head and a 0.121 inch (3 mm) diameter shank.

4.0 INSTALLATION

MAXTERRATM Fire Resistant Decorative Wall Panels are intended to be used as an interior finish material. The attachment (including stability requirements per Section 803.14 of the IBC), structural performance, design and installation requirements of the panels is outside of the scope of this report. The scope of this report is limited to the material properties of the panels, the durability and the surface burning characteristics.

5.0 CONDITIONS OF USE:

- **5.1** Use of MAXTERRATM Fire Resistant Decorative Wall Panels as structural floor sheathing, structural wall sheathing, structural roof sheathing, or as a substrate for application of other finishes (such as paint or wallpaper) is outside of the scope of this report.
- **5.2** Use of MAXTERRA™ Fire Resistant Decorative Wall Panels in fire-resistance rated construction is outside of the scope of this report.
- 5.3 Use of MAXTERRA™ Fire Resistant Decorative Wall Panels as a thermal barrier for separating foam plastic from the interior of the building in accordance with IBC Section 2603.4 and 2024 IRC Section R303.4 (2021, 2018 and 2015 IRC Section R316.4) in walls is outside of the scope of this report.
- 5.4 Use of MAXTERRA™ Fire Resistant Decorative Wall Panels Fire- and Water- Resistant Underlayment Panels to resist uniform transverse loads and in-plane racking shear loads is outside of the scope of this report. MAXTERRA™ Fire Resistant Decorative Wall Panels are limited to use on interior surfaces as defined in 2024, 2021,2018 and 2015 IBC Section 202. The panels must not be used in wet areas as defined in IBC Section 2509; under the IRC, the panels must not be used in showers.
- **5.5** MAXTERRA[™] Fire Resistant Decorative Wall Panels are manufactured under a quality-control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

6.1 Data in accordance with the ICC-ES Acceptance Criteria for Fiber-reinforced Magnesium-oxide-based Sheets, AC386 (24) 3rd Edition, published April 2025, excluding Appendix A regarding the corrosion effects in contact with common metals requirements.

7.0 IDENTIFICATION

- **7.1** The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-5507) along with the name, registered trademark, or registered logo of the report holder must be included in the product label.
- **7.2** The report holder's contact information is the following:

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