

ICC-ES Evaluation Report

ESR-4586 FBC Supplement

Issued August 2023

This report is subject to renewal August 2024.

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DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES
Section: 06 12 00—Structural Panels

REPORT HOLDER:

TWIN OAKS MADISON LLC

EVALUATION SUBJECT:

STRUCTURAL INSULATED PANELS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Structural Insulated Panels, described in ICC-ES evaluation report ESR-4586, has also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2023 and 2020 *Florida Building Code—Building*
- 2023 and 2020 *Florida Building Code—Residential*

2.0 CONCLUSIONS

The Structural Insulated Panels, described in Sections 2.0 through 7.0 of ICC-ES evaluation report ESR-4586, complies with the *Florida Building Code—Building* and the *Florida Building Code—Residential*. The design requirements must be determined in accordance with the *Florida Building Code—Building* or the *Florida Building Code—Residential*, as applicable. The installation requirements noted in ICC-ES evaluation report ESR-4586 for the 2021 and 2018 *International Building Code*® meet the requirements of the *Florida Building Code—Building* or the *Florida Building Code—Residential*, as applicable, with the following conditions:

- Installation of foam plastic in areas subject to damage from termites must meet the requirements of Sections 1403.8 and 2603.8 of the *Florida Building Code – Building* and Sections R318.7 and R318.3 of the *Florida Building Code – Residential*, as applicable.

Use of the Structural Insulated Panels has also been found to be in compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building* or the *Florida Building Code—Residential* with the following conditions:

- The allowable positive or negative design wind load must not exceed 83.2 psf* (3984 Pa).
 - The tested wall panel assembly is based on nominally 7 7/16-inch (187.7 mm) thick Structural Insulated Panels consisting of two - 12 mm thick MgO facings adhered vertically to 5 1/2-inch-thick extruded polystyrene foam plastic insulation core (EPS) with an extra layer of 12 mm thick MgO facing installed horizontally on each side and fastened to the SIP with #10-12 x 1 1/2 inches (38 mm) long bugle head self-drilling screws spaced at 3 inches (76 mm) on center around the perimeter of the SIP and 12 inches (305 mm) on center in the field (vertically and horizontally), with a 1 1/2 -inches (38 mm) offset from the base layer perimeter fasteners. Block splines were used and are as detailed in Section 3.2.4.1 of ESR-4586.

* Allowable positive or negative design wind load is based on an ultimate load with a safety factor of 1.5.

In addition to the data noted in Section 6.0 of the evaluation report ESR-4586, data in accordance with *Florida Building Code* Test Protocols for High-Velocity Hurricane Zones, TAS 201, TAS 202 and TAS 203 was submitted.

For products falling under Florida Rule 61G20-3, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official when the report holder does not possess an approval by the Commission).

This supplement expires concurrently with the evaluation report, issued August 2023.