



ICC-ES Evaluation Report ESR-4059

Reissued September 2022

Revised April 2023

This report is subject to renewal September 2023.

DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES
Section: 06 50 00—Structural Plastics

REPORT HOLDER:

WESTLAKE ROYAL BUILDING PRODUCTS

EVALUATION SUBJECT:

PALIGHT® TRIMBOARD AND PALIGHT® PROFINISH™ PROFILES

1.0 EVALUATION SCOPE

1.1 Compliance with the following codes:

- 2021, 2018, 2015, 2012, and 2009 *International Building Code*® (IBC)
- 2021, 2018, 2015, 2012 and 2009 *International Residential Code*® (IRC)

Properties evaluated:

- Weather resistance
- Termite resistance
- Surface burning characteristics
- Structural—negative-transverse wind loads on soffits

1.2 Evaluation to the following green code(s) and/or standards:

- 2019 California Green Building Standards Code (CALGreen), Title 24, Part 11
- 2020, 2015, 2012 and 2008 ICC 700 *National Green Building Standard*™ (ICC 700-2020, ICC 700-2015, ICC 700-2012 and ICC 700-2008)

Attributes verified:

See Section 3.1

2.0 USES

Palight® Trimboard and Palight® ProFinish™ Profiles are used as nonload-bearing exterior trim.

3.0 DESCRIPTION

3.1 General:

Palight® Trimboard and Palight® ProFinish™ Profiles are rigid cellular PVC solid cross sections installed as window

and door trim; fascia, corners and eaves, column wraps, and decorative bead board. The material is expanded rigid poly-vinyl-chloride material.

Palight® Trimboard and Palight® ProFinish™ Profiles are covered under this evaluation report, up to a maximum nominal thickness of 1¼ inches (31.75 mm), have a flame-spread index of less than 200 when tested in accordance with ASTM E84.

The attributes of the trim boards have been verified as conforming to the requirements of (i) 2019 CALGreen Section A4.405.1.1 for prefinished building materials and Section A5.406.1.2 for reduced maintenance; (ii) ICC 700-2020, ICC 700-2015 and ICC 700-2012 Sections 602.1.6 and 11.602.1.6 for termite-resistant materials; ICC 700-2020 Sections 601.7 and 11.601.7; ICC 700-2015 and 2012 Sections 601.7, 11.601.7, and 12.1(A).601.7 for prefinished materials; and (iii) ICC 700-2008 Section 602.8 for termite-resistant materials and Section 601.7 for prefinished materials. Note that decisions on compliance for those areas rest with the user of this report. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions, and the verification of those conditions is outside the scope of this report. These codes or standards often provide supplemental information as guidance.

3.1.1 Palight® Trimboard

Palight Standard Trimboards and Sheet are supplied with a smooth surface on both sides. Palight Standard Trimboards and Sheet are also supplied with a textured woodgrain finish surface on one side and a smooth surface on the other. Palight Standard Trimboards are available in nominal widths of 4 inches to 16 inches (101.6 to 406.4 mm) and nominal thicknesses of 5/8, 1, and 5/4 inches (15.0, 25.4 and 31.75 mm). Palight Trimboard Sheets are available in 4-foot (1.2 m) width and in lengths of 8, 10, 12, 18 and 20 feet (2.4, 3.0, 3.6, 5.4 and 6.0 m), with actual thicknesses of 3/8, 1/2, 5/8, 3/4, 1 and 1¼ inches (9.5, 12.7, 15.0, 19.1, 25.4 and 31.75 mm).

3.1.2 Palight® ProFinish™ Profiles

Palight® ProFinish™ Profiles are supplied with a smooth surface on both sides, or textured woodgrain finish surface on one side and a smooth surface on the other. Palight Trimboard Bead Boards are available in two nominal sizes, 1/2 inch (12.7 mm) thick by 4 inches (101.6 mm) wide by

18 feet (5.5 m) long, and $\frac{1}{2}$ inch thick (12.7 mm) by 6 inches (152.4 mm) wide by 18 feet (5.5 m) long. The Palight Trimboard Bead Board available in the nominal size $\frac{1}{2}$ inch (12.7 mm) thick by 6 inches (152.4 mm) wide by 18 feet (5.5 m) long is available as milled or extruded. Palight Trimboard Bead Sheets are available in two nominal sizes, $\frac{1}{2}$ inch (12.7 mm) thick by 4 feet (1.2 m) wide by 8 feet (2.4 m) long and $\frac{1}{2}$ inch (12.7 mm) thick by 4 feet (1.2 m) wide by 10 feet (3.0 m) long. Palight Trimboard Corners are available in nominal thicknesses of $\frac{5}{4}$ inches (31.75 mm), nominal outside-corner widths of 4 and 6 inches (101.6 and 152.4 mm), and in lengths of 10 and 20 feet (3.0 and 6.1 m). Palight Trimboard Corners with J Channel are available in nominal thickness of $\frac{5}{4}$ inches (31.75 mm), nominal outside-corner widths of 4, 6 and 8 inches (101.6, 152.4 and 203.2 mm), and in lengths of 10 and 20 feet (3.0 and 6.1 m). Palight Trimboard J Channel with Window Fin Relief are available in nominal thickness of $\frac{5}{4}$ inches (31.75 mm), nominal outside-corner widths of 4 and 6 inches (101.6 and 152.4 mm), and in lengths of 18 feet (5.4 m). Palight Trimboard Skirt Board is available in a nominal thickness of 1 and $\frac{5}{4}$ inches (25.4 and 31.75 mm), nominal widths of 6 and 8 inches (152.4 and 203.2 mm), and a length of 18 feet (5.4 m). Palight Trimboard with J Channel and Trimboard with Window Fin Relief are available in nominal thickness of $\frac{5}{4}$ inches (31.75 mm), nominal outside-corner widths of 4 and 6 inches (101.6 and 152.4 mm), and in lengths of 18 feet (5.4 m). Palight PostWrap Column Wrap is available in a nominal thickness of $\frac{1}{2}$ inches by $4\frac{3}{4}$ or $6\frac{3}{4}$ inches (120.7 or 171.5 mm) and a length of $8\frac{1}{2}$ feet or 10 feet (2.6 m or 3.0 m).

4.0 INSTALLATION

4.1 General:

Palight® Trimboard and Palight® ProFinish™ Profiles must be installed in accordance with the manufacturer's published installation instructions and this report. The instructions within this report must govern if there are any conflicts between the manufacturer's published installation instructions and this report.

4.2 Fasteners:

Fasteners must be hot-dipped galvanized and must be approved box nails or Cortex coated steel wood screws designed for wood trim and wood siding with a thinner shank. Nails must have blunt points and full-round heads. Staples, small brads, and wire nails must not be used. The fasteners must be long enough to penetrate the solid wood substrate a minimum of $1\frac{1}{2}$ inches (38.1 mm). Use two fasteners per every framing member for trimboard applications. Trimboards 12 inches or wider, as well as sheets, will require additional fasteners. The fasteners located at board ends must be placed no more than 2 inches (50.8 mm) from the end of the board.

4.3 Negative Wind Load Assembly—Soffits Using Palight Trimboards:

Palight Trimboard measuring $\frac{1}{2}$ -inch thick (12.7 mm) and $1\frac{1}{4}$ -inch thick (31.75 mm), and $\frac{1}{2}$ -inch thick (12.7 mm) tongue and groove Palight Trimboard Bead Board soffits have an allowable negative wind design load as indicated in Table 1 of this report when installed on minimum 2-by-4 wood framing SPF stud grade (G = 0.42) spaced 16 inches (406.4 mm) on center. The Palight Trimboard and Palight

Trimboard Bead Board must be installed with the long direction perpendicular to the wood framing and must be fastened to each of the wood members with two $3\frac{1}{4}$ -inch-long (82.55 mm), 16d box nails, located 2 inches (50.8 mm) from the seam/edge of panels or with two 2-inch (50.8 mm), No. 10 Cortex coated steel wood screws, located 2 inches (50.8 mm) from the seam/edge of panels.

5.0 CONDITIONS OF USE

The Palight® Trimboard and Palight® ProFinish™ Profiles described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 This evaluation report and the manufacturer's published installation instructions, when required by the code official, must be submitted at the time of permit application.
- 5.2 The trim must be manufactured, identified and installed in accordance with this report and the Palight® Trimboard and Palight® ProFinish™ Profiles instructions.
- 5.3 The product is limited to the following construction types:
 - 5.3.1 Nonload-bearing exterior trim on buildings of combustible non-fire-resistance-rated construction (Type VB of the IBC).
 - 5.3.2 All construction types permitted under the IRC.
- 5.4 The product must be installed over solid backing material, such as approved exterior sheathing covered with an approved water-resistant barrier or approved exterior wall covering.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Rigid Cellular PVC Nonload-Bearing Exterior Trim (AC227), dated December 2019 (editorially revised November 2021).

7.0 IDENTIFICATION

- 7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-4059) along with the name, registered trademark, or registered logo of the report holder must be included in the product label. [Electronic labeling is the ICC-ES web address (www.icc-es.org); specific URL related to the report; or the ICC-ES machine-readable code placed on the aforementioned items.]
- 7.2 In addition, each package Palight® Trimboard and Palight® ProFinish™ Profiles described in this report must be labeled with the Westlake Royal Building Products name, address and telephone number; the product trade name; and the evaluation report number (ESR-4059).
- 7.3 The report holder's contact information is the following:

WESTLAKE ROYAL BUILDING PRODUCTS
2801 POST OAK BLVD.
SUITE 600
HOUSTON, TEXAS 77056
(855) 769-2585
<https://westlakeroyalbuildingproducts.com>

TABLE 1—ALLOWABLE NEGATIVE WIND PRESSURE¹

PRODUCT DESCRIPTION	FASTENER TYPE	FASTENER INSTALLATION	ALLOWABLE NEGATIVE WIND PRESSURE (PSF)
1/2-inch thick by 8-inch wide trim board	16d by 3 1/2-inch (0.164-inch) diameter shank, hot-dipped galvanized steel common exterior framing nail	Two fasteners, minimum, per a framing member at 2-inches from edges	210
	Cortex coated steel wood screw		103
1 1/4-inch thick by 7 1/4-inch wide trim board	16d by 3 1/2-inch (0.164-inch) diameter shank, hot-dipped galvanized steel common exterior framing nail		173
	Cortex coated steel wood screw		347
1/2-inch thick by 5 1/2-inch wide tongue and groove bead board	16d by 3 1/2-inch (0.164-inch) diameter shank, hot-dipped galvanized steel common exterior framing nail		290
	Cortex coated steel wood screw		123

For SI: 1 inch= 25.4 mm; 1 psf= 4.79 Pa.

¹ Installation must comply with Section 4.3 of this report.

ICC-ES Evaluation Report

ESR-4059 FBC Supplement

Reissued September 2022

Revised April 2023

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1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Palight® Trimboard and Palight® ProFinish™ Profiles, described in ICC-ES evaluation report ESR-4059, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2017 *Florida Building Code—Building*
- 2017 *Florida Building Code—Residential*

2.0 CONCLUSIONS

Palight® Trimboard and Palight® ProFinish Profiles, described in Sections 2.0 through 7.0 of the evaluation report ESR-4059, complies with the *Florida Building Code—Building* and the *Florida Building Code—Residential*. The design requirements shall 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-4059 for the 2018 *International Building Code*® (IBC) and 2018 *International Residential Code*® (IRC) meet the requirements of the *Florida Building Code—Building* or the *Florida Building Code—Residential*, as applicable. Use of the Palight® Trimboard and Palight® ProFinish Profiles for compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building* and the *Florida Building Code—Residential* has not been evaluated, and is outside the scope of this supplemental report.

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, reissued September 2022 and revised April 2023.