



- Compliance with International Codes
- Compliance with State Codes

ICC-ES Evaluation Report

ESR-2824

Reissued June 2022

This report is subject to renewal June 2024.

DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES

Section: 06 50 00—Structural Plastics

REPORT HOLDER:

INTEPLAST GROUP CORPORATION

EVALUATION SUBJECT:

INTEPLAST BUILDING PRODUCTS DECK X-STRONG (INTEPLAST® DECK X-STRONG), INTEPLAST BUILDING PRODUCTS DECK (INTEPLAST® DECK), AND INTEPLAST BUILDING PRODUCTS PORCH (INTEPLAST® PORCH)

ADDITIONAL LISTEE:

THE WOLF ORGANIZATION, LLC

PRODUCT NAMES: WOLF SERENITY™ DECKING (INTEPLAST® DECK) AND WOLF SERENITY™ PORCH (INTEPLAST® PORCH)

1.0 EVALUATION SCOPE

1.1 Compliance with the following codes:

- 2021, 2018, 2015, 2012, 2009 and 2006 *International Building Code*® (IBC)
- 2021, 2018, 2015, 2012, 2009 and 2006 *International Residential Code*® (IRC)
- 2013 *Abu Dhabi International Building Code* (ADIBC)[†]

[†]The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

Properties evaluated:

- Structural
- Durability
- Surface-burning characteristics

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

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

Attributes verified:

See Section 3.1

2.0 USES

The Inteplast Building Products Deck X-Strong (Inteplast® Deck X-Strong) Inteplast Building Products Deck (Inteplast® Deck), and Inteplast Building Products Porch (Inteplast® Porch) boards described in this report are limited to use as flooring boards for exterior balconies, porches and decks in buildings of Type V-B (IBC) construction or buildings constructed in accordance with the IRC. Inteplast® Deck X-Strong boards and Inteplast® Deck boards can also be used as stair treads where indicated in Table 2.

3.0 DESCRIPTION

3.1 General:

The Inteplast® Deck X-Strong and Inteplast® Porch boards are rectangular in cross section and are co-extrusions of capstock and cellular PVC core produced in accordance with the approved quality control manual. The deck boards have been shown to comply with ASTM D7032, except for slip resistance, which is not required by ICC-ES AC174. The Inteplast® Deck X-Strong boards are available in solid and grooved profiles. The boards have a wood grain textured finish and are 1 inch (25.4 mm) thick by 5½ inches (140 mm) wide, with slightly rounded corners. The boards are available in the colors of Sage, Grey, Sahara, Oxford Brown, Espresso, Chestnut, Terracotta, Charcoal, Burnished Maple, Warm Walnut, Slate, Ebony, Sequoia, Grey Walnut, Hickory, Red Cedar, and Acorn. See Figure 1 for typical cross sections of Inteplast® Deck X-Strong boards.

The Inteplast® Porch boards are tongue and groove boards that are 1 inch (25.4 mm) thick by 3½ inches (88.9 mm) wide. The boards are capped and are available in the colors of Acorn, Burnished Maple, Gray Walnut, Gray, Harbor Grey, Sand Castle, Weathered Ipe, and Amberwood. See Figure 2 for a typical cross section.

The Inteplast® Deck boards are rectangular in cross section, and are coextrusions of capstock and a cellular PVC core. The Inteplast® Deck boards are available in a solid profile. The boards are 1 inch (25.4 mm) thick by 5½ inches (140 mm) wide. The boards are available in the colors of Alder, Acorn, Sage, Sahara, Gray, Sandalwood, Espresso, Hickory, Gray Walnut, Burnished Maple, Warm

Walnut, Red Cedar, Brazilian Teak, Grey Oak, Cherry, Driftwood, Pecan, Ash, Shady Oak, Driftwood Grey, Harbor Grey, Sand Castle, Teakwood, Cypress, Silver Teak, Black Walnut, Amberwood, Weather Ipe, and Rosewood. See Figure 1 for a typical cross section.

The attributes of the deck boards have been verified as conforming to the provisions of (i) CALGreen Section A5.406.1.2 for reduced maintenance; (ii) ICC 700-2015 and ICC 700-2012 Sections 602.1.6 and 11.602.1.6 for termite-resistant materials and Sections 601.7, 11.601.7, and 12.1(A).601.7 for site-applied finishing materials; and (iii) ICC 700-2008 Section 602.8 for termite-resistant materials and Section 601.7 for site-applied finishing 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. See Section 3.2 for limitations on termite-resistance use.

3.2 Durability:

When subjected to weathering, insect attack including Formosan termites and other decaying elements, Inteplast® Deck X-Strong, Inteplast® Deck, and Inteplast® Porch boards are equivalent in durability to preservative-treated or naturally durable lumber. Accordingly, Inteplast® Deck X-Strong boards are permitted to be used as an alternative to preservative-treated or naturally durable lumber on exterior decks, porches, balconies and stair treads and the Inteplast® Porch boards are permitted to be used as an alternative to preservative-treated or naturally durable lumber on exterior decks, porches and balconies. The Inteplast® Deck X-Strong, Inteplast® Porch, and Inteplast® Deck boards have been evaluated for use at ambient air temperatures between -20°F (-29°C) and 125°F (52°C).

3.3 Surface-burning Characteristics:

When tested in accordance with ASTM E84, the Inteplast® Deck X-Strong and Inteplast® Porch boards have a flame-spread index of no greater than 200.

4.0 DESIGN AND INSTALLATION

4.1 General:

The Inteplast® Deck X-Strong, Inteplast® Deck, and Inteplast® Porch boards must be installed in accordance with the manufacturer's published installation instructions, subject to the conditions of use in this report. A copy of the manufacturer's published installation instructions must be available on the jobsite at all times during installation.

4.2 Deck Boards:

Design loads imposed on the Inteplast® Deck X-Strong, Inteplast® Deck, and Inteplast® Porch boards must be limited to the allowable capacities shown in Table 1. The boards must be installed perpendicular to the supporting construction, which is limited to a maximum spacing as prescribed in Table 1. Boards must be spaced at edges and ends in accordance with the manufacturer's published installation instructions.

4.3 Deck Boards Used as Stair Treads:

The Inteplast® Deck X-Strong boards and Inteplast® Deck boards, when used as stair treads, are sufficient to resist the code-prescribed concentrated load of 300 lbf (1.33 kN) when installed in at least a two-span continuous condition with a maximum center-to-center spacing of supporting construction as indicated in Table 2. Inteplast® Deck boards are limited to residential use when used as stair treads.

4.4 Fasteners:

The Inteplast® Deck X-Strong and Inteplast® Deck solid boards must be fastened with two No. 7 by 2¹/₄-inch-long (57 mm) stainless steel deck screws or stainless steel wood screws or the Tiger Claw TC-3S Hidden Fastener System at each supporting wood member. Stair treads must be fastened along the risers with the deck screws or wood screws as required for the deck boards. When using the screws, the screws must be positioned within ³/₄ inch to 1 inch (19 to 25 mm) of the board edge and ¹/₂ inch (13 mm) from board ends. The Inteplast® Deck X-Strong grooved boards must be installed using the TC-G hidden fastener system by Tiger Claw Hidden Deck Fasteners or two No. 8 by 2¹/₂-inch-long (64 mm) stainless steel deck screws at each supporting wood member. The allowable uplift using the TC-3S hidden fastener system or the TC-G hidden fastener system is 100 psf. The Inteplast® Porch boards must be installed with a minimum No. 7 by 2¹/₄-inch-long (57 mm) stainless steel trim head screws in accordance with the manufacturer's installation instructions.

5.0 CONDITIONS OF USE

The Inteplast® Deck X-Strong boards, Inteplast® Deck boards and Inteplast® Porch boards described in this report comply with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 The Inteplast® Deck X-Strong board is limited to exterior use as flooring for balconies, porches, decks and stair treads of buildings of Type V-B (IBC) construction or buildings constructed in accordance with the IRC.
- 5.2 The Inteplast® Porch board is limited to exterior use as flooring for balconies, porches and decks of buildings of Type V-B (IBC) construction or buildings constructed in accordance with the IRC.
- 5.3 The Inteplast® Deck board is limited to exterior use as flooring for balconies, porches and decks of buildings of Type V-B (IBC) construction or buildings constructed in accordance with the IRC and stair treads of residential buildings of Type V-B (IBC) construction or buildings constructed in accordance with the IRC.
- 5.4 Installation must comply with this report, the manufacturer's published instructions and the applicable code. When the manufacturer's published installation instructions conflict with this report, this report governs.
- 5.5 The use of Inteplast® Deck X-Strong, Inteplast® Deck, and Inteplast® Porch boards as a component of a fire-resistance-rated assembly is outside the scope of this report.
- 5.6 The compatibility of the fasteners with the supporting construction, including chemically treated wood, is outside the scope of this report.
- 5.7 The Inteplast® Deck X-Strong, Inteplast® Deck and Inteplast® Porch boards must be directly fastened to supporting construction. Where required by the code official, engineering calculations and construction documents consistent with this report must be submitted for approval. The calculations must verify that the supporting construction complies with the applicable building code requirements and is adequate to resist the loads imparted to it from the products discussed in this report. The documents must contain details of the attachment to the supporting structure consistent with the requirements of this report. The

documents must be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.

5.8 The Inteplast® Deck X-Strong, Inteplast® Deck, and Inteplast® Porch boards are produced in Lolita, Texas, under a quality control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Deck Board Span Ratings and Guardrail Systems (Guards and Handrails) (AC174), dated January 2012 (editorially revised April 2021).

7.0 IDENTIFICATION

7.1 Each board or package of boards described in this report must be identified by a label bearing the Inteplast Group Corporation name and address, the Inteplast® Deck X-Strong, Inteplast® Porch (Wolf Serenity™ Porch), or Inteplast® Deck (Wolf Serenity™ Decking), the span rating for use as a deck board, the allowable span when used as a stair tread and the evaluation report number (ESR-2824).

7.2 The report holder’s contact information is the following:

INTEPLAST GROUP CORPORATION
9 PEACH TREE HILL ROAD
LIVINGSTON, NEW JERSEY 07039
(973) 994-8027
www.inteplast.com

7.3 The Additional Listee’s contact information is the following:

THE WOLF ORGANIZATION, LLC
20 WEST MARKET STREET
YORK, PENNSYLVANIA 17403
(717) 852-4800
www.wolfhomeproducts.com

TABLE 1—DECK BOARD SPAN RATING

PRODUCT NAME	MAXIMUM SPAN ¹ (in.)	ALLOWABLE CAPACITY ² (lbf/ft ²)
Inteplast® Deck X-Strong Board (solid or grooved)	16	100
Inteplast® Porch Board	16	100
Inteplast® Deck Board (solid only)	16	100

For **SI**: 1 inch = 25.4 mm; 1 lbf/ft² = 47.9 Pa.

¹Maximum span is measured center-to-center of the supporting construction.

²Allowable capacity is adjusted for durability. No further increases are permitted.

TABLE 2—MAXIMUM STAIR TREAD SPAN²

DECK BOARDS USED AS STAIR TREADS	MAXIMUM SPAN ^{1,2} (in.)
Inteplast® Deck X-Strong Board (solid or grooved)	12
Inteplast® Deck Board (solid only)	12 ³

For **SI**: 1 inch = 25.4 mm; 1 lbf/ft² = 47.9 Pa.

¹Maximum span is measured center-to-center of the supporting construction.

²Based on a minimum continuous two-span installation.

³Limited to residential construction (See Section 4.3).

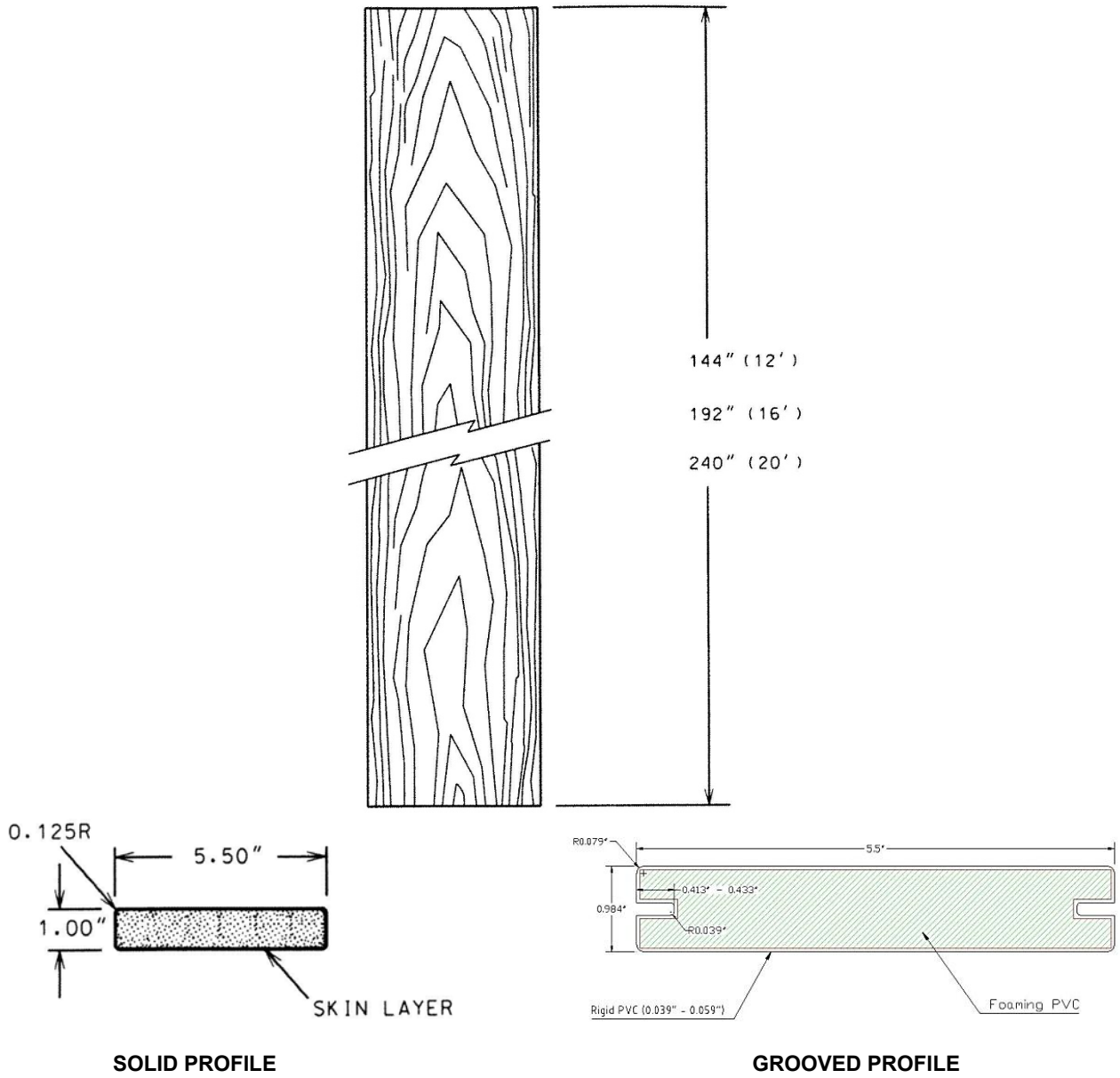


FIGURE 1—INTEPLAST® DECK X-STRONG BOARD AND INTEPLAST® DECK BOARD (SOLID PROFILE ONLY)

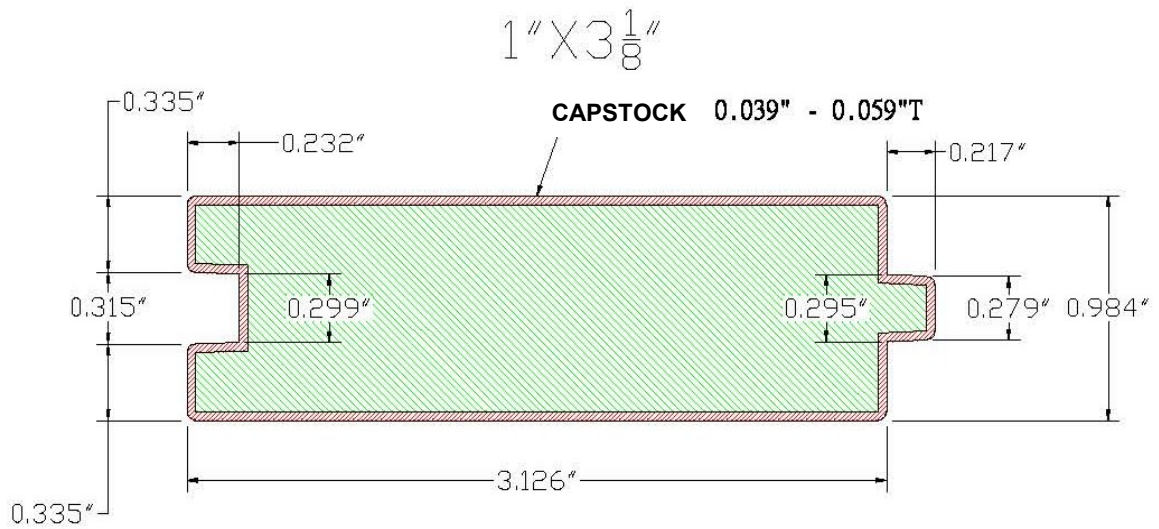


FIGURE 2—INTEPLAST PORCH BOARD

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1.0 REPORT PURPOSE AND SCOPE**Purpose:**

The purpose of this evaluation report supplement is to indicate that the Inteplast Building Products Deck X-Strong (Inteplast® Deck X-Strong) Inteplast Building Products Deck (Inteplast® Deck), and Inteplast Building Products Porch (Inteplast® Porch) boards, described in ICC-ES evaluation report ESR-2824, have also been evaluated for compliance with the codes noted below.

Applicable code edition(s):

- 2019 *California Building Code* (CBC)

For evaluation of applicable chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) AKA: California Department of Health Care Access and Information (HCAI) and the Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

- 2019 *California Residential Code* (CRC)

2.0 CONCLUSIONS**2.1 CBC:**

The Inteplast Building Products Deck X-Strong (Inteplast® Deck X-Strong) Inteplast Building Products Deck (Inteplast® Deck), and Inteplast Building Products Porch (Inteplast® Porch) boards, described in Sections 2.0 through 7.0 of the evaluation report ESR-2824, comply with CBC Chapters 14 and 26, provided the design and installation are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of CBC Chapters 14 and 26, as applicable.

2.1.1 OSHPD: The applicable OSHPD Sections and Chapters of the CBC are beyond the scope of this supplement.

2.1.2 DSA: The applicable DSA Sections and Chapters of the CBC are beyond the scope of this supplement.

2.2 CRC:

The Inteplast Building Products Deck X-Strong (Inteplast® Deck X-Strong) Inteplast Building Products Deck (Inteplast® Deck), and Inteplast Building Products Porch (Inteplast® Porch) boards, described in Sections 2.0 through 7.0 of the evaluation report ESR-2824, comply with CRC Chapter 3 and Section R507, provided the design and installation are in accordance with the 2018 *International Residential Code*® (IRC) provisions noted in the evaluation report.

This supplement expires concurrently with the evaluation report, reissued June 2022.