

ICC-ES Evaluation Report**ESR-2824**

Reissued June 1, 2012

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**DIVISION: 06 00 00—WOOD, PLASTICS AND
COMPOSITES****Section: 06 50 00—Structural Plastics****REPORT HOLDER:****INTEPLAST GROUP LTD.
9 PEACH TREE HILL ROAD
LIVINGSTON, NEW JERSEY 07039
(973) 994-8027
www.inteplast.com****EVALUATION SUBJECT:****TUFboard® DECK AND TUFboard® PORCH****ADDITIONAL LISTEES:****CEVN CORPORATION
60 SCHOOLHOUSE ROAD
SOMERSET, NEW JERSEY 08873
(732) 281-7338****THE WOLF ORGANIZATION
20 WEST MARKET STREET
YORK, PENNSYLVANIA 17403
(717) 852-4800****1.0 EVALUATION SCOPE****Compliance with the following codes:**

- 2012, 2009 and 2006 *International Building Code*® (IBC)
- 2012, 2009 and 2006 *International Residential Code*® (IRC)

Properties evaluated:

- Structural
- Durability
- Surface-burning characteristics

2.0 USES

The TUFboard® Deck and TUFboard® 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. TUFboard® Deck boards can also be used as stair treads.

3.0 DESCRIPTION**3.1 General:**

The TUFboard® Deck and TUFboard® 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 TUFboard® Deck 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 eight colors: sage, grey, sahara, oxford brown, espresso, chestnut, terracotta and acorn. See Figure 1 for typical cross sections of TUFboard Deck boards.

The TUFboard® 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 and grey. See Figure 2 for a typical cross section.

3.2 Durability:

When subjected to weathering, insect attack and other decaying elements, TUFboard® Deck and TUFboard® Porch boards are equivalent in durability to preservative-treated or naturally durable lumber. Accordingly, TUFboard® Deck 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 TUFboard® Porch boards are permitted to be used as an alternative to preservative-treated or naturally durable lumber on exterior decks, porches and balconies. The TUFboard® Deck and TUFboard® Porch 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 TUFboard® Deck and TUFboard® Porch boards have a flame-spread index of no greater than 200.

4.0 DESIGN AND INSTALLATION**4.1 General:**

The TUFboard® Deck and TUFboard® 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 TUFboard® Deck and TUFboard® 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 TUFboard® 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.

4.4 Fasteners:

The TUFboard® Deck solid boards must be fastened with two No. 7 by 2 1/4-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 TUFboard® Deck grooved boards must be installed using the TC-G hidden fastener system by Tiger Claw Hidden Deck Fasteners or two No. 8 by 2 1/2-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.

5.0 CONDITIONS OF USE

The TUFboard® Deck boards and TUFboard® 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 TUFboard® Deck 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 TUFboard® 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 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.

- 5.4 The use of TUFboard® Deck and TUFboard® Porch boards as a component of a fire-resistance-rated assembly is outside the scope of this report.
- 5.5 The compatibility of the fasteners with the supporting construction, including chemically treated wood, is outside the scope of this report.
- 5.6 The TUFboard® Deck and TUFboard® 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.
- 5.7 The TUFboard® Deck and TUFboard® Porch boards are produced in Lolita, Texas, under a quality control program with inspections by Architectural Testing, Inc. (AA-676).

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.

7.0 IDENTIFICATION

Each board or package of boards described in this report must be identified by a label bearing the Inteplast Group, Ltd., name and address, the TUFboard® Deck name, the span rating for use as a deck board, the allowable span when used as a stair tread, the name of the inspection agency (Architectural Testing Inc., AA-676) and the evaluation report number (ESR-2824).

TABLE 1—DECK BOARD SPAN RATING

PRODUCT NAME	MAXIMUM SPAN ¹ (in.)	ALLOWABLE CAPACITY ² (lbf/ft ²)
TUFboard® Deck Board (solid or grooved)	16	100
TUFboard Porch Board	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.)
TUFboard® Deck Board (solid or grooved)	12 ²

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.

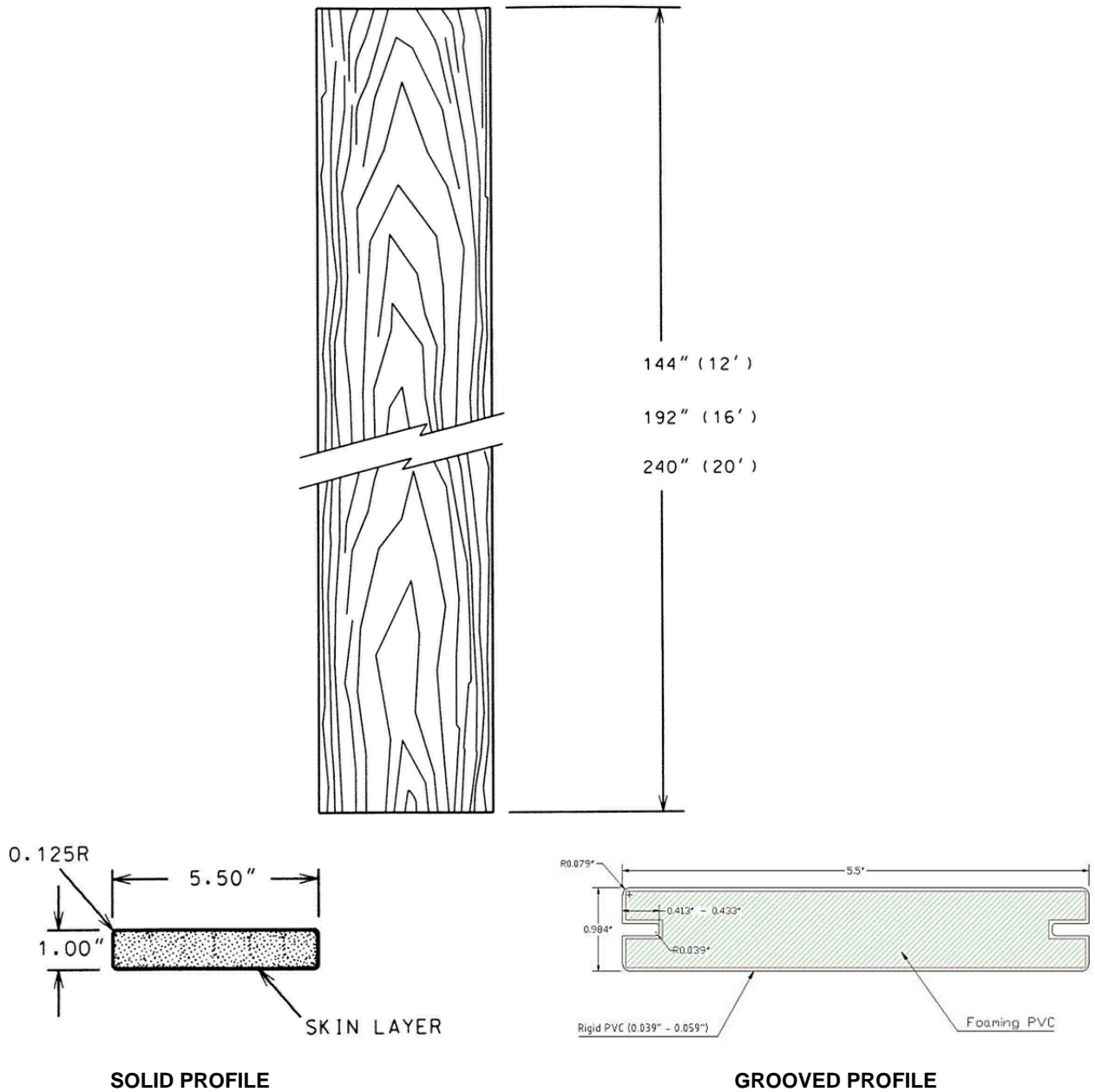


FIGURE 1—TUFboard® DECK BOARD

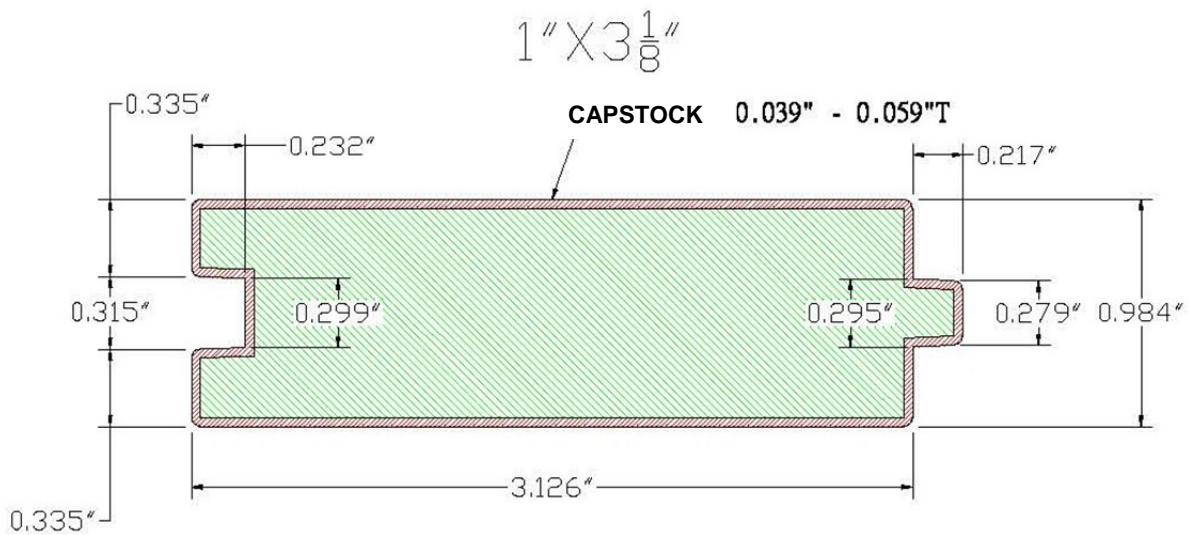


FIGURE 2—TUFboard® PORCH Board