

**ICC-ES Evaluation Report****ESR-3511**

Issued July 1, 2013

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**DIVISION: 06 00 00—WOOD, PLASTICS AND  
COMPOSITES****Section: 06 50 00—Structural Plastics****Section: 06 53 00—Plastic Decking****REPORT HOLDER:****BUILDING PRODUCTS INTERNATIONAL  
1 EAST OAKWOOD HILLS DRIVE  
CHANDLER, ARIZONA 85248  
(480) 600-7328**[www.aeratis.com](http://www.aeratis.com)**EVALUATION SUBJECT:****AERATIS PORCH FLOORING****1.0 EVALUATION SCOPE****Compliance with the following codes:**

- 2012 *International Building Code*® (IBC)
- 2012 *International Residential Code*® (IRC)

**Properties evaluated:**

- Structural
- Durability
- Surface-burning characteristics

**2.0 USES**

The Aeratis Porch Flooring is for exterior use as deck boards for balconies, porches and decks of residential buildings of Type V-B construction under the IBC and dwellings constructed in accordance with the IRC.

**3.0 DESCRIPTION****3.1 General:**

Aeratis Porch Flooring is tongue-and-groove deck boards having a textured surface finish that simulates wood grain. The boards are manufactured from a poly vinyl chloride (PVC) and wood composite, and are light brown in color. Aeratis Porch Flooring deck boards are 3 inches (137 mm) wide and 0.9 inch (22.9 mm) thick. See Figure 1 for a profile.

**3.2 Durability:**

When subjected to weathering, insect attack (including Formosan termites), and other decaying elements, the deck board material is equivalent in durability to preservative-treated or naturally durable lumber. Accordingly, the material is permitted to be used as an

alternative to preservative-treated or naturally durable lumber on exterior decks, porches or balconies, as applicable. The 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, Aeratis Porch Flooring has a flame-spread index no greater than 200.

**4.0 DESIGN AND INSTALLATION****4.1 General:**

The deck 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:**

The deck boards are limited to the maximum allowable uniform load indicated in Table 1. The deck boards installed on supporting construction must have a maximum span as prescribed in Table 1. The ends of the boards must be supported by double joists where butt joints occur. The deck boards must be spaced at edges and ends in accordance with the manufacturer's published installation instructions.

**4.3 Fasteners**

The Aeratis Porch Flooring must be fastened with a GRK #8 by 2-inch (51 mm) stainless steel screw at each supporting wood member. The allowable fastener head pull-through capacity is 88 lbf (392 N) and the allowable withdrawal is 101 lbf (449 N) for each screw.

**5.0 CONDITIONS OF USE**

The Aeratis Porch Flooring described in this report complies 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 Aeratis Porch Flooring is limited to exterior use as deck boards for balconies, porches and decks of residential buildings of Type V-B (IBC) construction and structures constructed in accordance with the IRC.
- 5.2** Installation must comply with this report, the manufacturer's published instructions, and the applicable code. When the manufacturer's published installation instructions differ from this report, the more restrictive governs.

- 5.3 The use of Aeratis Porch Flooring as stair treads is outside of the scope of this report.
- 5.4 The use of Aeratis Porch Flooring as a component of a fire-resistance-rated assembly is outside the scope of this report.
- 5.5 The compatibility of fasteners with the supporting construction, including chemically treated wood, is outside the scope of this report.
- 5.6 The deck 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 upon it from the products and systems 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 Aeratis Porch Flooring is produced in Kunshan, Jiansu, China, under a quality control program with inspections by Ramtech Laboratories (AA-655).

**6.0 EVIDENCE SUBMITTED**

Data in accordance with applicable portions of the ICC-ES Acceptance Criteria for Deck Board Span Ratings and Guardrail Systems (AC174), dated January 2012.

**7.0 IDENTIFICATION**

The deck boards described in this report are identified by a label on the packaging bearing the Building Products International name and address, the product name, the span rating for use as a deck board, the name of the inspection agency (Ramtech) and the evaluation report number (ESR-3511).

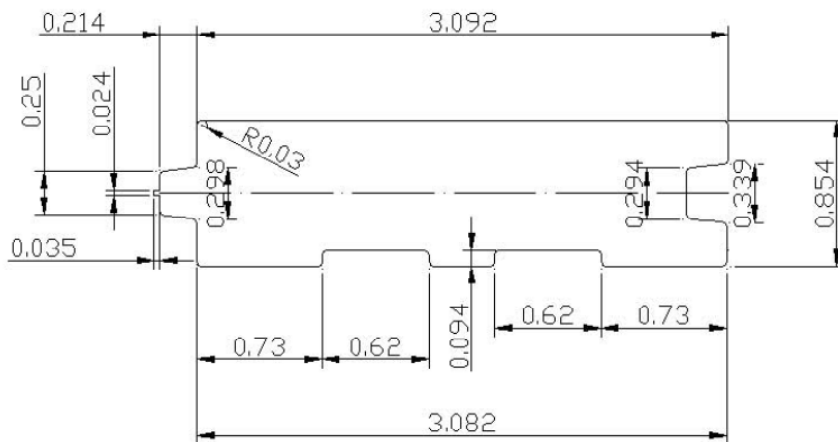
**TABLE 1—DECK BOARD SPAN RATING**

DECK BOARD (inch-by-inch)	MAXIMUM SPAN (in.) <sup>1</sup>	ALLOWABLE CAPACITY <sup>2</sup> (lbf/ft <sup>2</sup> )
0.9-by-3.0 Solid	16	100

For SI: 1 inch = 25.4 mm; 1 lbf/ft<sup>2</sup> = 47.9 Pa.

<sup>1</sup>Maximum span is measured center-to-center of the supporting construction.

<sup>2</sup>Maximum allowable capacity is adjusted for durability. No further increases are permitted.



**FIGURE 1—DECK BOARD PROFILE**