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**DIVISION: 06 00 00 – WOOD, PLASTICS AND COMPOSITES**

**Section: 06 50 00 – Structural Plastics**

**Section: 06 53 00 – Plastic Decking**

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**REPORT SUBJECT:**

*Deck Lok™ System*

### 1.0 SCOPE OF EVALUATION

This research report addresses compliance with the following Codes:

- 2015 and 2012 International Building Code (IBC)
- 2015 and 2012 International Residential Code (IRC)
- 2014 Florida Building Code (FBC)  
*excluding High Velocity Hurricane Zone (HVHZ)*

NOTE: This report references 2015 Code sections with [2012] Code sections in brackets where they differ.

*Deck Lok™* deck boards have been evaluated for the following properties:

- Structural Performance
- Durability
- Surface Burning

### 2.0 USES

**2.1.** *Deck Lok™ System* is a deck board intended for use as a walking surface on exterior decks, balconies, porches, and walkways, including stairs as further defined herein.

**2.2.** The deck boards identified in this report may be used in One- and Two-Family Dwellings regulated by the IRC and other construction types regulated by the IBC Section 1406.3 as follows:

**2.2.1.** Construction Type IIB, IIIB, and VB per IBC § 1406.3 and Table 601 (No fire resistance rating required for floors),

**2.2.2.** Construction Type IIIA, IV and VA per IBC §1406.3, Exception 3 (Sprinkler protection required).

### 3.0 DESCRIPTION

#### 3.1. Materials and Processes

**3.1.1.** *Deck Lok™ Systems* are co-extruded, hollow, PVC deck boards with a PVC cap and are produced in four colors: Latte, Gray, Tan and Stone.

#### 3.2. Profiles

**3.2.1.** *Deck Lok™* deck boards have a hollow cross-section with nominal dimensions of 1.5" tall and 5.875" wide. The boards interlock together utilizing a tongue-and-groove joint. See Figure1.

**3.2.2.** Walking Surface – *Deck Lok™* deck boards are finished with a simulated wood-grain pattern.

### 4.0 PERFORMANCE CHARACTERISTICS

**4.1.** *Deck Lok™* deck boards are rated for a uniform live load of 100 lb/ft<sup>2</sup> when installed on support framing spaced at 24 inches on-center.

**4.2.** *Deck Lok™* deck boards used as stair treads are rated for the code-prescribed concentrated load equal to 300 lb when installed with a maximum span indicated in Table 1. Deck boards used as stair treads shall be installed in a minimum two-span condition.

**4.3.** Materials used in the deck boards have a flame spread index not greater than 200, when tested in accordance with ASTM E84, as required by ICC-ES AC174.

**4.4.** Materials are deemed equivalent to preservative treated or naturally durable wood for resistance to weathering effects, attack from termites and fungus decay.

**4.5.** Structural performance has been demonstrated for a temperature range from -20°F to 125°F.



## 5.0 INSTALLATION

*Deck Lok™* deck boards must be installed in accordance with the manufacturer's published installation instructions, the applicable Code and this Research Report. The manufacturer's published installation instructions and this Research Report must be strictly adhered to, and a copy of the instructions must be available on the jobsite during installation.

**5.1.** *Deck Lok™* deck boards are fastened with one #8 x 2" stainless steel wood screw at every wood joist. See Table 1 and Figure 2 for installation details.

## 6.0 SUPPORTING EVIDENCE

**6.1.** Manufacturer's drawings and installation instructions.

**6.2.** Reports of testing in accordance with ICC-ES AC174, *Acceptance Criteria for Deck Board Span Ratings and Guardrail Systems (Guards and Handrails)*, revised December 2014.

**6.3.** Reports of testing and engineering evaluation demonstrating compliance with the performance requirements of ASTM D 7032-10a [-08], *Standard Specification for Establishing Performance Ratings for Wood-Plastic Composite Deck Boards and Guardrail Systems (Guards or Handrails)*.

**6.4.** Documentation of an Intertek approved quality control system for the manufacturing of products recognized in this report.

## 7.0 CONDITIONS OF USE

The *Deck Lok™* deck boards described in this Research Report complies with, or is a suitable alternative to, what is specified in those Codes listed in Sections 1.0 and 2.0 of this report, subject to the following conditions:

**7.1.** Installation must comply with this Research Report, the manufacturer's published installation instructions and the applicable Code. In the event of a conflict between the manufacturer's instructions and this report, this report governs.

**7.2.** Deck boards placed at an angle other than 90 degrees to the supporting joist will require support framing at a reduced spacing such that the span of the deck board does not exceed the Table 1 span ratings.

**7.3.** The wind uplift resistance rating recognized in this report is based on attachment to treated Southern Pine framing (specific gravity,  $G=0.55$ ). Installation on wood framing with a lesser specific gravity may result in a lower wind uplift rating.

**7.4.** Where required by the building official, engineering calculations and details shall be provided. The calculations shall verify that the anchorage complies with the building code for the type of framing and condition of the supporting construction.

**7.5.** Compatibility of the supporting construction materials with all fasteners, metal post mount components, and other hardware components is subject to approval by the code official.

**7.6.** Only those types of fasteners and fastening methods described in this report have been evaluated for the installation of the *Deck Lok™ Systems*; other methods of attachment are outside the scope of this report.

The *Deck Lok™* is manufactured by Westech Building Products under an approved quality control system with inspections by Intertek Testing Services NA, Inc. (AA-676).

## 8.0 IDENTIFICATION

The *Deck Lok™* deck boards described in this Research Report are identified by a marking bearing the report holder's name (Westech Building Products), and the Code Compliance Research Report number (CCRR-0200) and the following statement: "See CCRR-0200 at <https://whdirectory.intertek.com> for uses and performance levels."





## 9.0 CODE COMPLIANCE RESEARCH REPORT

**9.1.** Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

**9.2.** Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Architectural Testing.

**9.3.** Reference to the Intertek website address: [whdirectory.intertek.com](http://whdirectory.intertek.com) is recommended to ascertain the current version and status of this report.

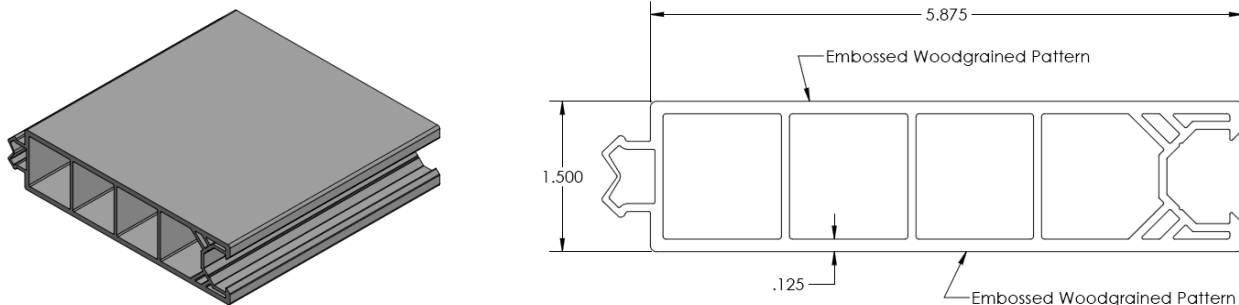
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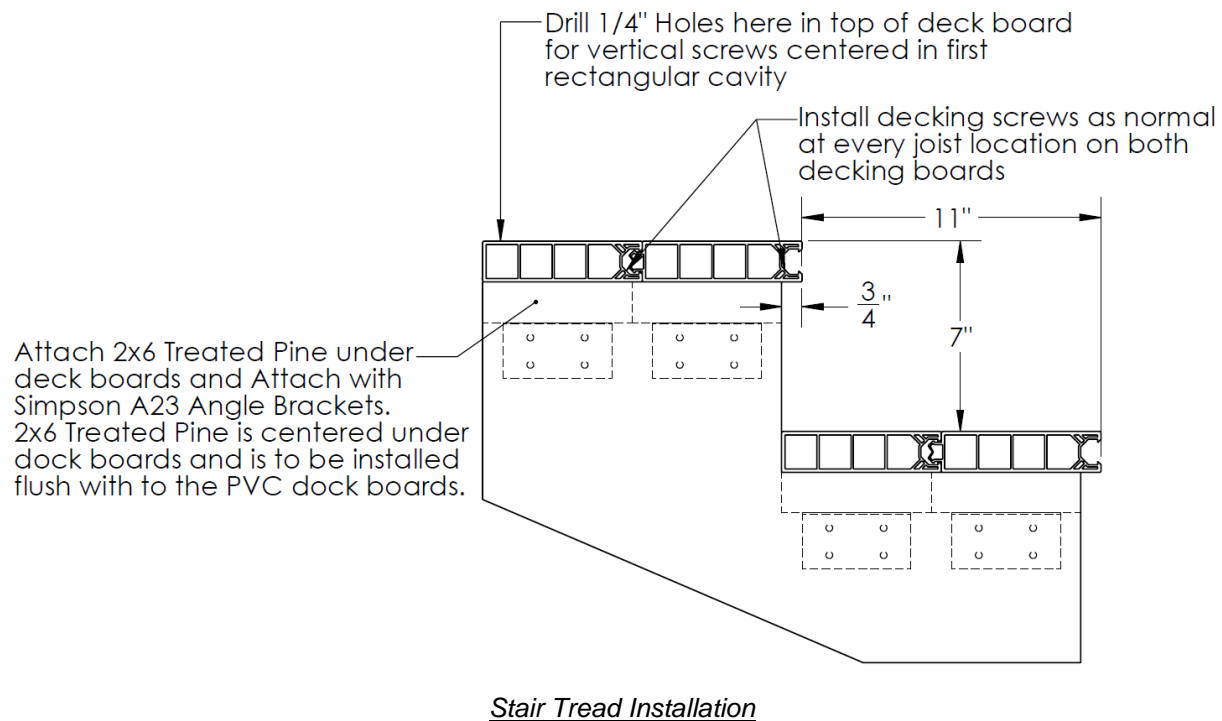
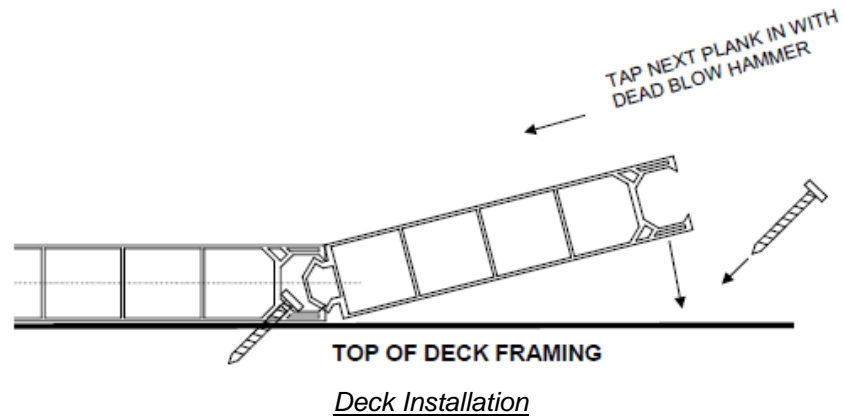


**TABLE 1 – SPAN AND UPLIFT RESISTANCE RATINGS**

Deck Board	Maximum Span / Allowable Load Rating <sup>(1)</sup>	Maximum Stair Tread Span <sup>(2)</sup>	Fastener Description	Wind Uplift Resistance <sup>(3)</sup>
<i>Deck Lok™ System</i>	24" Span 100 psf Load	12" Span	One #8 x 2" Exterior Stainless Steel Screw. See Figure 2.	83 psf

- (1) Span/Load rating is the maximum span in inches and the maximum allowable live load in pounds per square feet (psf).
- (2) Stair tread span is based on a continuous deck board over two or more equal spans (3 supports).
- (3) Wind uplift resistance is based on installation as described in Section 5.0. Values have been adjusted for wind load duration and end use. No further adjustments shall be made.


**FIGURE 1 – DECK LOK™ PROFILE**



**FIGURE 2 – DECK LOK™ INSTALLATION DETAILS**