

Issue Date: 10-01-2015  
Revision Date: 05-02-2018  
Renewal Date: 12-01-2018

**DIVISION: 06 00 00 – WOOD, PLASTICS AND COMPOSITES**  
**Section: 06 50 00 – Structural Plastics**  
**Section: 06 53 00 – Plastic Decking**

**REPORT HOLDER:**

Eovations, LLC  
5 Meadowcraft Parkway  
Selma, AL 36701  
(334) 872-1580  
[www.Eovationsllc.com](http://www.Eovationsllc.com)

**REPORT SUBJECT:**

*Eovations™ Deck Boards*  
*Eovations™ Porch Boards*  
*Deckorators® Vault Deck Boards*  
*Deckorators® Frontier Deck Boards*  
*SLS Composite Deck Boards*  
*Ultra Light Deck Boards*

### 1.0 SCOPE OF EVALUATION

1.1. This research report addresses compliance with the following Codes:

- 2018, 2015 *International Building Code®* (IBC)
- 2018, 2015 *International Residential Code®* (IRC)

1.2. Deck and porch boards have been evaluated for the following properties:

- Structural Performance
- Durability
- Surface Burning

1.3. *Eovations™*, *Deckorators®*, *SLS Composite*, *Ultra Light* deck and *Porch* boards are intended for use as a walking surface on exterior decks, balconies, porches, and walkways, including stairs as further defined herein.

1.4. The deck and porch 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 in accordance with IBC Section 1406.3 as follows:

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

Construction Type IIIA, IV & VA per IBC §1406.3, Exception 3 (Sprinkler protection required)

### 2.0 STATEMENT OF COMPLIANCE

*Eovations™*, *Deckorators®*, *SLS Composite*, *Ultra Light* deck and *Porch* boards comply with the Codes listed in Section 1.1, for the properties stated in Section 1.2 and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.

### 3.0 DESCRIPTION

3.1. *Eovations™*, *Deckorators®*, *SLS Composite*, *Ultra Light* deck and *Porch* boards are thermoplastic composite deck boards, co-extruded using proprietary inorganic fillers and polypropylene (PP) materials with a polypropylene cap.

3.2. Finished deck boards are available in solid or slotted rectangular profiles.

3.2.1. *Eovations™* deck boards are provided with nominal dimensions of 5.3" wide and 0.75" thick. See Figure 1.

3.2.2. *SLS Composite* and *Ultra Light* deck boards are provided with nominal dimensions of 5.2" wide and 0.800" thick. See Figure 2.

3.2.3. *Deckorators® Vault* and *Frontier* deck boards are provided with nominal dimensions of 5.5" wide and 0.835" thick. See Figure 3.

3.3. *Eovations™ Porch* boards are provided with a tongue and groove profile of nominal dimensions of 3.125" wide and 0.835" thick. See Figure 4.

3.4. Deck boards may be installed via face-fastening using exterior screws or by using hidden fastener systems.



#### 4.0 PERFORMANCE CHARACTERISTICS

- 4.1.** Deck and porch boards are rated for a uniform live load of 100 lbs/ft.<sup>2</sup> when installed on support framing spaced at up to 16”.
- 4.2.** Deck and porch boards used as stair treads are rated for the code-prescribed concentrated load equal to 300 lb when installed with a maximum 9" support span. Deck and porch boards used as stair treads shall be installed in a minimum two-span condition.
- 4.3.** Deck and porch boards have wind uplift resistance ratings as determined by the fastening method. See Table 1.
- 4.4.** Materials used have a flame spread index no greater than 200 when tested in accordance with ASTM E84.
- 4.5.** Materials are deemed equivalent to preservative treated or naturally durable wood for resistance to weathering effects, attack from termites and fungus decay.
- 4.6.** Structural performance has been demonstrated for a temperature range from -20°F to 125°F.
- 4.7.** Deckorators® Vault deck boards installed with the *FastenDry* hidden fastening system have demonstrated to prevent water penetration through the deck assembly when tested in accordance with ASTM E1646.

#### 5.0 INSTALLATION

Installation shall be in accordance with the manufacturer's installation instructions and this report. Where differences occur between this report and the manufacturer's installation instructions, this report shall govern.

- 5.1.** Solid deck boards may be installed with #7 x 1-7/8” Camo™ hidden fasteners. Two fasteners are required at every joist.
- 5.2.** Slotted deck boards are installed with the *Equator*®, *Stowaway*™, or *FastenDry* hidden fastener systems. For the *Equator*® and *Stowaway*™ hidden fasteners, one fastener is required at every joist. The *FastenDry* hidden fasteners are fastened at each joist, installed continuous

along the length of each deck board. See Table 2 and Figure 5.

- 5.3.** Tongue and groove porch boards are installed with the “T” or “L” cleat nails. One nail is required at every joist. See Figure 6.

#### 6.0 CONDITION OF USE

The deck board applications identified in this report are deemed to comply with the intent of the provisions of the referenced building codes subject to the following conditions:

- 6.1.** Deck and porch 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 board does not exceed 16”.
- 6.2.** 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.
- 6.3.** 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.
- 6.4.** Compatibility of the supporting construction materials with all metal fasteners are subject to approval by the code official.
- 6.5.** Only those types of fasteners and fastening methods described in this report have been evaluated for the installation of the deck boards; other methods of attachment are outside the scope of this report.
- 6.6.** *Eovations*™, *Deckorators*®, *SLS Composite*, *Ultra Light* deck and *Porch* boards are manufactured in accordance with the manufacturer's approved quality control system with inspections by NTA (AA-682).

#### 7.0 SUPPORTING EVIDENCE

- 7.1.** Manufacturer's drawings and installation instructions.





7.2. Reports of testing and engineering analysis demonstrating compliance with ICC-ES AC174, Acceptance Criteria for Deck Board Span Ratings and Guardrail Systems (Guards and Handrails), revised December 2014, and ASTM D7032-10a (-14 for 2018 IBC).

7.3. Reports of testing demonstrating water penetration resistance in accordance with ASTM E1646, Standard Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference.

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

### 8.0 IDENTIFICATION

*Eovations™, Deckorators®, SLS Composite, Ultra Light* deck and porch boards produced in accordance with this report shall be identified with labeling on the individual deck boards that includes the following information: Name and/or trademark of manufacturer; the Code Compliance Research

Report identification and number (CCRR-0195); and the following statement: “See Intertek CCRR-0195 at <https://whdirectory.intertek.com> for uses and performance levels.”

### 9.0 OTHER CODES

This section is not applicable.

### 10.0 CODE COMPLIANCE RESEARCH REPORT

10.1. 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.

10.2. Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.

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

This Code Compliance Research Report (“Report”) is for the exclusive use of Intertek’s Client and is provided pursuant to the agreement between Intertek and its Client. Intertek’s responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Report. Only the Client is authorized to permit copying or distribution of this Report and then only in its entirety, and the Client shall not use the Report in a misleading manner. Client further agrees and understands that reliance upon the Report is limited to the representations made therein. The Report is not an endorsement or recommendation for use of the subject and/or product described herein. This Report is not the Intertek Listing Report covering the subject product and utilized for Intertek Certification and this Report does not represent authorization for the use of any Intertek certification marks. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.





Table 1 – Span and Uplift Resistance Ratings

Product	Live Load (in / psf)	Stair Tread Support Spacing <sup>(1)</sup>	Fastener <sup>(2)</sup>	Uplift Resistance
<i>Eovations™</i> Deck Boards	16 / 100	9 inches	#7 x 1-7/8" <i>Camo™</i> coated steel screw	77 psf
<i>Deckorators® Vault</i> Deck Boards			<i>Equator®</i> Hidden Fastener	44 psf
<i>Deckorators® Frontier</i> Deck Boards			<i>Stowaway™</i> Hidden Fastener	50 psf
<i>SLS Composite</i> Deck Boards			<i>Deckorators® FastenDry</i> Hidden Fastener	44 psf
<i>Ultra Light</i> Deck Boards				
<i>Eovations™</i> Porch	16 / 100	9 inches	"L" cleat nail	127 psf
			"T" cleat nail	138 psf

<sup>(1)</sup> Continuous two-span installation.

<sup>(2)</sup> As described in Table 2.

Table 2 - Fastener Description and Uplift Resistance Ratings

Generic Fastener Description	Uses	Detailed Fastener Description
#7 x 1-7/8" <i>Camo™</i> coated steel screw	Hidden fasteners for solid deck boards (see Section 5.1)	9 TPI with a 0.43 in. length of reverse pitch, 1.85 in. overall length, 0.162 in. major dia., 0.197 in. head dia., star drive trim head, pinch point
<i>Equator®</i> Hidden Fastener (Figure 5)	Hidden Fastening system for slotted deck boards (see Section 5.2)	Polypropylene Clips 10 TPI with a 2 in. overall length, 0.170 in. major dia., 0.242 in. head dia., square drive trim head, type 17 point
<i>Stowaway™</i> Hidden Fastening System (Figure 5)	Hidden Fastening system for slotted deck boards (see Section 5.2)	Nylon Composite Clips fastened to joists with #7 by 1-5/8 in. long stainless steel screw (0.164 in. major dia., 0.124 in. shank dia., 0.235 in head dia.)
<i>Deckorators® FastenDry</i> Hidden Fastener System (Figure 5)	Hidden Fastening system for slotted deck boards (see Section 5.2)	"T"-shaped, Santoprene gasket fastened perpendicular to the joist spans with two stainless steel 8d ring shank nails at each joist using a pneumatic nail gun with compressed air set at 90 psi.
"L" cleat nail (Figure 6)	Fastening system for tongue and groove porch boards (see Section 5.2)	16 gauge x 2" Freeman 'L' Cleat Flooring Nail installed using a pneumatic flooring tool
"T" cleat nail (Figure 6)	Fastening system for tongue and groove porch boards (see Section 5.2)	16 gauge x 2" Freeman 'T' Cleat Flooring Nail installed using a pneumatic flooring tool



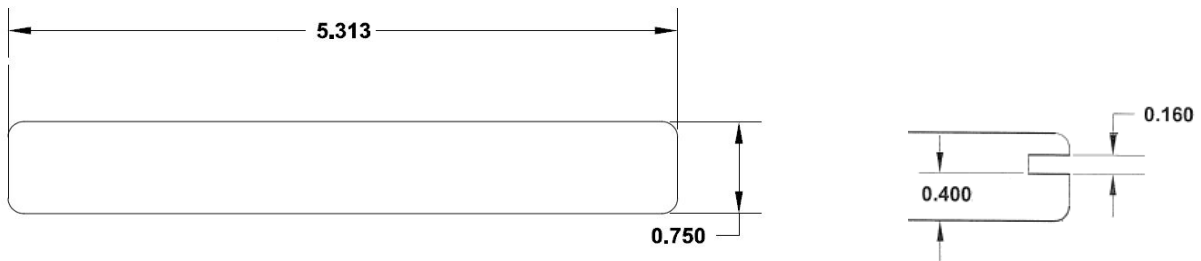


Figure 1 – Eovations™ Deck Board Profile

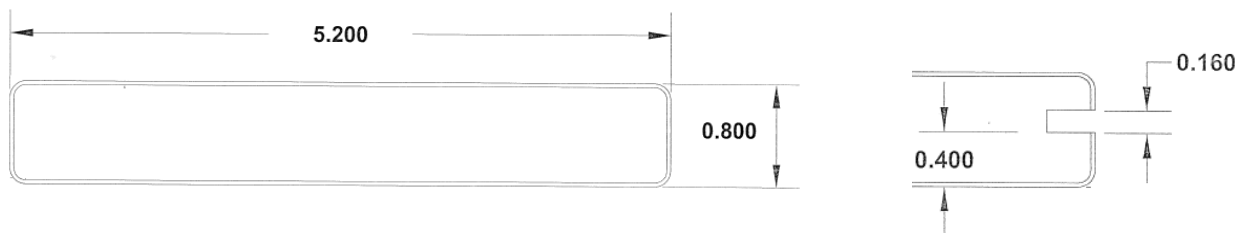


Figure 2 – SLS Composite and Ultra Light Deck Board Profiles

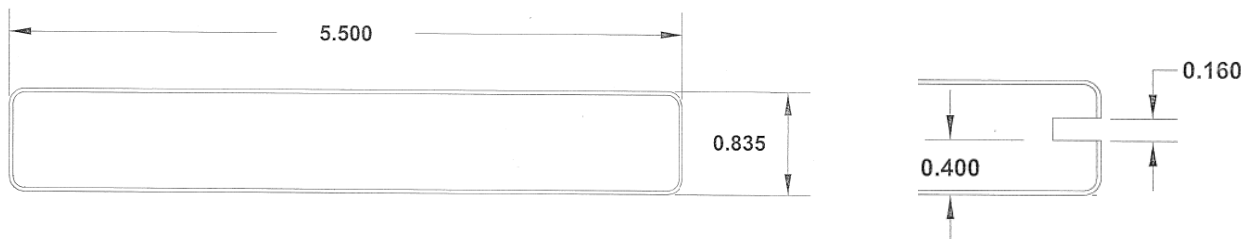


Figure 3 – Deckorators® Vault and Frontier Deck Board Profiles

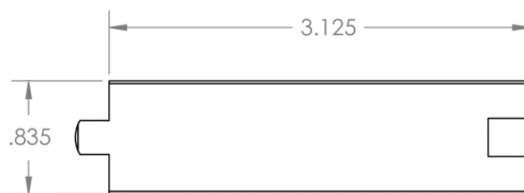
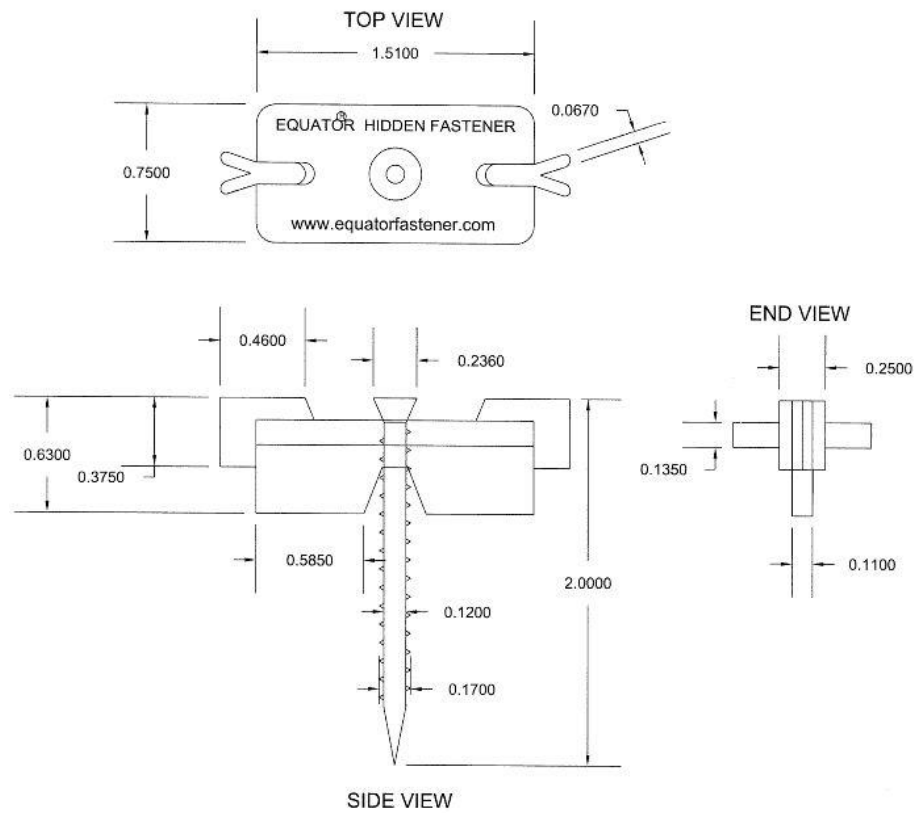
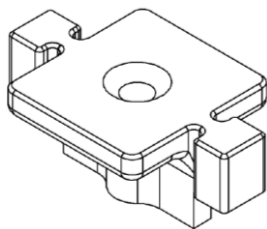


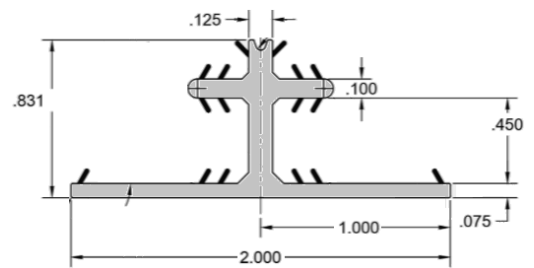
Figure 4 – Eovations™ Porch Profile



*Equator*® Hidden Fastener System



*Stowaway*™ Hidden Fastener System



*Deckorators*® FastenDry System

**Figure 5 – Deck Board Fasteners**



"L" Cleat Nail (16 gauge, 2")



"T" Cleat Nail (16 gauge, 2")

**Figure 6 – Porch Fasteners**