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

**REPORT HOLDER:**

**Fortress Deck Products**  
**1720N First Street**  
**Garland, TX 75040**  
[www.fortressdeck.com](http://www.fortressdeck.com)

**REPORT SUBJECT:**

**Infinity Deck Boards**  
**Infinity Stair Boards**

Construction Type IIB, IIIB & VB per IBC Section 705.2.3.1 [1406.3] and Table 601 (No fire resistance rating required for floors).

Construction Type IIA, IV and VA per IBC Section 705.2.3.1 [1406.3], Exception 3 (Sprinkler protection required)

## 2.0 STATEMENT OF COMPLIANCE

Infinity deck and stair boards complies 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.

## 1.0 SCOPE OF EVALUATION

**1.1** This Research Report addresses compliance with the following Codes:

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

NOTE: This report references 2018 Code sections with [2015] Code sections shown in brackets where they differ.

**1.2** Infinity Deck Boards have been evaluated for the following properties:

- Structural Performance
- Durability
- Surface Burning
- Decay Resistance
- Termite Resistance

**1.3** Infinity Deck Boards has been evaluated for the following uses:

- General- Infinity deck boards are intended for use as a walkway surface on exterior decks, balconies, porches and walkways, including stairs as further defined herein. Infinity Stair Board is intended for stair applications.
- 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 in accordance with IBC Section 705.2.3.1 [1406.3] as follows:

## 3.0 DESCRIPTION

**3.1** General- *Infinity* deck board is a co-extruded wood fiber composite core with a cap-stock on all surfaces. *Infinity* deck boards are produced in the following colors: Tiger Cove, Spanish Saffron, Kona Sunset, Cape Town Grey, Espresso Roast, Sapphire Silver, Sahara Sand.

**3.2** *Infinity* decking boards are available with square, stair, and grooved cross sections. Stair board applications are a square cross section. Square boards have a rectangular cross-section with nominal dimensions of 5.51" wide by 0.91" thick. The *Infinity* deck boards are also available with grooves, 0.2" deep by 0.4" wide, to accept hidden fasteners, the overall dimensions are 5.51" x 0.9". The Stair tread boards (square) are 12.8" wide x 1.18" thick. See Figures 1 through 3. All deck boards are embossed with a plowed finish.

**3.3** Walking Surface – Infinity deck boards and stair boards have a plowed and embossed simulated wood-grain pattern.

## 4.0 PERFORMANCE CHARACTERISTICS

**4.1** *Infinity* deck and stair boards are rated for a uniform live load of 100 lbs/ft<sup>2</sup> when installed on support framing spaced at 16".



**4.2** *Infinity* stair boards are rated for the code-prescribed concentrated load equal to 300lb when installed with a maximum 16" support span.

**4.3** *Infinity* Deck and Stair boards are rated for wind uplift resistance with the fastening systems as described in Table 1.

**4.4** *Infinity* deck boards have a flame spread index of less than 200 when tested according to ASTM E 84. The referenced criteria, AC174 requires a flame spread index not exceeding 200.

**4.5** Materials are deemed equivalent to preservative treated or naturally durable wood for resistance to weather 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** Stair treads shall be installed in a minimum two-span condition.

## 5.0 INSTALLATION

### 5.1 General:

Infinity Decking must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.

**5.2** Infinity square, stair and grooved deck boards are fastened with the fastening system as described in Table 1. See Figure 4 for fastening.

**5.3** Face-fastening of Infinity square deck boards shall be fastened with two 2 ½" Top fixing CDS screws at each Joist, ¾" from the edge of the deck board. Infinity grooved deck boards shall not be face fastened.

## 6.0 CONDITIONS OF USE

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

**6.2** Infinity Deck and Stair boards are intended for use as a walkway surface on exterior decks, balconies, porches and walkways, including stairs as further defined herein.

**6.3** 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 16".

**6.4** The wind uplift resistance rating recognized in this report is based on attachment to treated Southern Pine framing (specific gravity, G=0.60). Installation on wood framing with a lesser specific gravity may result in a lower wind uplift rating.

**6.5** 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

**6.6** Compatibility of the supporting construction materials with all metal fasteners are subject to approval by the code official.

**6.7** All products are manufactured in accordance with the manufacturer's approved quality control system with inspections by Intertek.

## 7.0 SUPPORTING EVIDENCE

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

**7.2** 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.

**7.3** The reports of testing and engineering analysis demonstrating compliance with the performance requirements of ASTM D 7032-14 [10a], *Standard Specification for Establishing Performance Ratings for Wood-Plastic Composite Deck Boards and Guardrails Systems (Guards or Handrails)*.

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





### 8.0 IDENTIFICATION

The Infinity Deck and Stair Boards are identified with the manufacturer’s name (Fortress Deck Products), address and telephone number, the product name (Infinity Deck and Stair Boards), the statement “Complies with ASTM D 7032.”, the Intertek Mark as shown below, and the Code Compliance Research Report number (CCRR-0265).



### 9.0 OTHER CODES

This section is not applicable.

### 10.0 CODE COMPLIANCE RESEARCH REPORT USE

**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 Intertek directory of building products at <https://bpdirectory.intertek.com> is recommended to ascertain the current version and status of this report.

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TABLE 1 – PROPERTIES EVALUATED

| Board Type                  | Span/Load (psf) Ratings <sup>(1)</sup> | Fastening   | Wind Uplift Resistance <sup>(2)</sup> |
|-----------------------------|--|---|---------------------------------------|
| Infinity Square Deck Board  | 16"/100                                | Face Fastened with two Infinity top fixing CDS Screws 2 ½" per joist<br><br>Edge of deck fastening: along the length of the deck board at 16" on center, one top fixing CDS screw 2 ½".                       | 150 psf                               |
| Infinity Grooved Deck Board | 16"/100                                | <u>Hidden Fastener System:</u><br>Halo Clip fastened with one 1 ½" Hulk Torpedo Clip Screw<br><br>Edge of deck fastening: along the length of the deck board at 16" on center, one top fixing CDS screw 2 ½". | 150 psf                               |
| Infinity Stair Board        | 16" maximum span                       | Face Fastened with two Infinity top fixing CDS Screws 2 ½" per joist  | 150 psf                               |

- (1) Span/Load rating is the maximum span in inches and the maximum allowable load in pounds per square feet (psf). The maximum allowable loads indicated include applicable end use factors. No additional adjustments should be taken.
- (2) Wind uplift resistance is based on installation described in Section 5. Values have been adjusted for end use. No further adjustment shall be made.

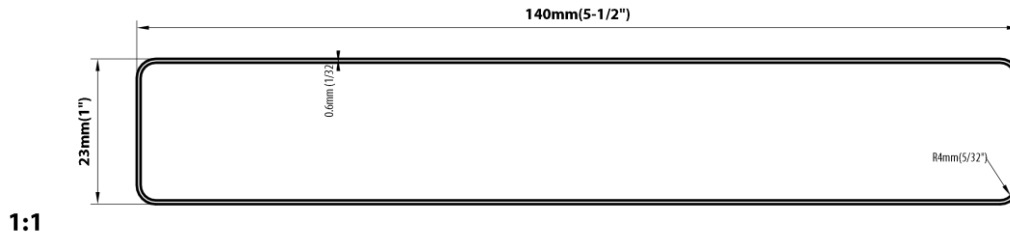


FIGURE 1 – INFINITY SQUARE BOARD

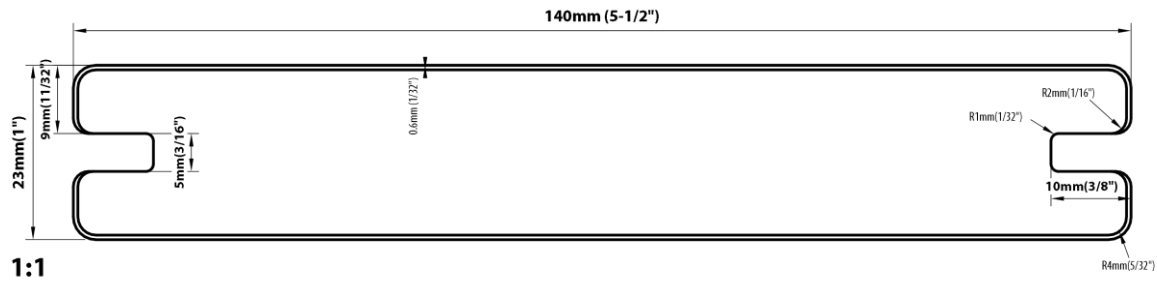


FIGURE 2 – INFINITY GROOVED BOARD

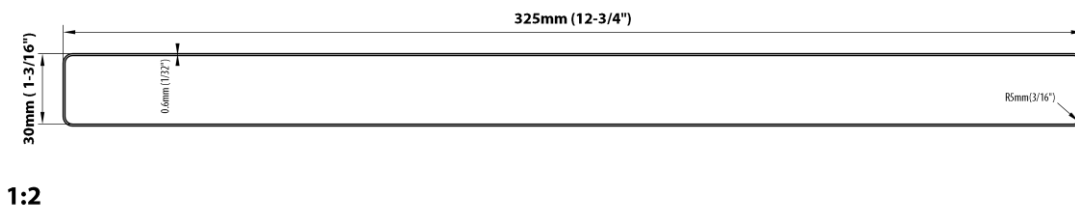
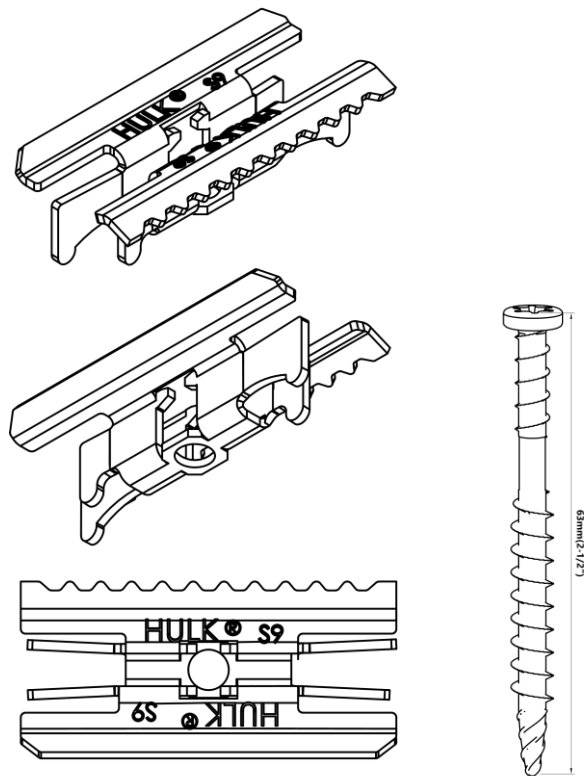


FIGURE 3 – INFINITY STAIR BOARD



Hulk Clip

Hulk Torpedo Screw

FIGURE 4 – HIDDEN FASTENER SYSTEM