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

REPORT HOLDER:

Envision Outdoor Living Products LLC
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REPORT SUBJECT:

EverGrain® Decking – 1x6 and 2x6
Ridge Classic Decking – 1x6

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2021, 2018, 2015 *International Building Code*® (IBC)
- 2021, 2018, 2015 *International Residential Code*® (IRC)

NOTE: This report references the most recent Code editions cited. Section numbers in earlier editions may differ.

1.2 The *EverGrain*® and *Ridge Classic* Decking have been evaluated for the following properties (see Table 1):

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

1.3 The *EverGrain*® and *Ridge Classic* Decking have been evaluated for the following uses (see Table 1):

- *The decking boards are* intended for use as a walking surface on exterior decks, balconies, porches, and walkways, including stairs as described further herein.
- 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 *Combustible projections* where fire-resistance rated floor construction is not required for the deck or balcony.

2.0 STATEMENT OF COMPLIANCE

The *EverGrain*® and *Ridge Classic* Decking 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 6.0.

3.0 DESCRIPTION

3.1 *EverGrain*® and *Ridge Classic* boards are a compression molded composite material comprised of part wood fiber and part plastic. *EverGrain*® boards are provided in the following colors: Redwood, Cedar, Weathered Wood, Cape Cod Grey, and Forest Green. *Ridge Classic* boards are provided in the following colors: Weathered Wood and Cape Cod Grey.

3.2 *EverGrain*® 1x6 board is produced in both solid and grooved rectangular profiles and is a nominal 1 inch thick and 5.5 inches wide. The 2x6 board is produced in a solid rectangular profile and is a nominal 1.4 inches thick and 5.5 inches wide. See Figure 1 and Figure 2.

3.3 *Ridge Classic* 1x6 board is produced in solid, fluted rectangular profiles and is a nominal 1 inch thick and 5.5 inches wide. See Figure 3.

3.4 Walking Surface – All *EverGrain*® and *Ridge Classic* boards use an embossed simulated wood-grain pattern on the walking surface.

4.0 PERFORMANCE CHARACTERISTICS

4.1 The *EverGrain*® and *Ridge Classic* Decking are rated for the uniform live loads and snow loads as identified in Table 1.

4.2 Both the *EverGrain*® and *Ridge Classic* Decking may be used as stair treads when installed in a minimum two-span condition and are rated for the code-prescribed



concentrated load equal to 300 lb. when installed with a maximum span as shown in Table 1.

4.3 *EverGrain*[®] and *Ridge Classic* Decking boards have wind uplift resistance ratings as determined by the fastening method. See Table 2.

4.4 Composite materials used have a flame spread index not exceeding 200 when tested in accordance with ASTM E 84.

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

4.6 Structural performance has been demonstrated for a temperature range from -20°F to 125°F for live load and -20°F to 70°F for snow load.

5.0 INSTALLATION

The *EverGrain*[®] and *Ridge Classic* 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.

5.1 *EverGrain*[®] and *Ridge Classic* Decking shall be installed with fastening as indicated in Table 2.

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 The *EverGrain*[®] and *Ridge Classic* Decking applications identified in this report are deemed to comply with the intent of the provisions of the referenced building codes are subject to the following conditions.

6.3 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 17 inches for *EverGrain*[®] and *Ridge Classic* Decking

1x6 boards, and 24 inches for *EverGrain*[®] Decking 2x6 boards.

6.4 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.

6.5 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 fasteners is subject to approval by the code official.

6.7 Only those types of fasteners and fastening methods described in Tables 2 and 3 have been evaluated for the installation of the *EverGrain*[®] and *Ridge Classic* Decking; other methods of attachment are outside the scope of this report.

6.8 *EverGrain*[®] and *Ridge Classic* Decking are manufactured under a quality control program with inspections by Intertek Testing Services NA Inc.

7.0 SUPPORTING EVIDENCE

7.1 Manufacturer's drawings and installation instructions.

7.2 Reports of testing and engineering demonstrating compliance with ICC-ES AC174, Acceptance Criteria for Deck Board Span Ratings and Guardrail Systems (Guards and Handrails), Revised December 2014 and ASTM D 7032-17.

7.3 Engineering calculations for snow load analysis by licensed Professional Engineer.

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

7.5 Intertek Listing Report "[Evergrain and Ridge Classic Decking](#)", on the [Intertek Directory of Building Products](#).





8.0 IDENTIFICATION

The *EverGrain*[®] and *Ridge Classic* Decking are identified with the manufacturer's name (Envision Outdoor Living Products LLC), the product name (Evergrain and Ridge Classic Decking," the statement "ASTM D 7032 compliant. See CCRR-0177 at <https://bpdirectory.intertek.com> for uses and performance levels.", the Intertek Mark as shown below, the Intertek Control Number and the Code Compliance Research Report number (CCRR-0177).



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 the <https://bpdirectory.intertek.com> is recommended to ascertain the current version and status of this report.

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TABLE 1 – SPAN / LOAD RATINGS AND STAIR TREAD SUPPORT SPACING

| Decking | Span / Load Ratings | | | Stair Tread Support Spacing ⁽²⁾ (in) |
|------------------------------------|---|--|----------|--|
| | Live Load (in / lb/ft ²) | Snow Load ⁽¹⁾ (in / lb/ft ²) | | |
| EverGrain [®] 1x6 Solid | 17 / 100 | 17 / 250 | 14 / 350 | 12 |
| | 12 / 296 | | | |
| EverGrain [®] 1x6 Grooved | 17 / 100 | 17 / 250 | 14 / 350 | N/A |
| EverGrain [®] 2x6 | 24 / 100 | 24 / 250 | 20 / 350 | 16 |
| Ridge Classic 1x6 | 17 / 100 | N/A | N/A | 9 |

⁽¹⁾ The maximum allowable loads indicated include applicable end use factors. No additional adjustments should be taken.

⁽²⁾ Continuous two-span installation.

TABLE 2 – UPLIFT RESISTANCE RATING

| Decking | Support Spacing (in) | Fastener ⁽¹⁾ | Uplift Resistance (lb/ft ²) |
|------------------------------------|-------------------------|---|--|
| EverGrain [®] 1x6 Grooved | 16 | Tiger-Claw TC-G Hidden Fastener System | 145 |
| | | EverClip Hidden Fastener | 326 |
| EverGrain [®] 1x6 Solid | 16 | #10 x 2-1/2" TrapEase [®] Composite Deck Screw | 455 |
| | | EG 1-2-3 Hidden Fastener System | 117 |
| EverGrain [®] 2x6 | 24 | #10 x 3" TrapEase [®] Composite Deck Screw | 322 |
| | | EG 1-2-3 Hidden Fastener System | 94 |
| Ridge Classic 1x6 | 17 | #10 x 2-1/2" Envision & Evergrain [®] Composite Deck Screw | 422 |

⁽¹⁾ As described in Table 3 below.



TABLE 3 – FASTENER DESCRIPTION

| Generic Fastener Description | Uses | Detailed Fastener Description |
|---|---|---|
| #10 x 2-1/2" TrapEase® Composite Deck Screw | Face fastening for 1x6 (see Table 2) | 11 TPI with a 0.75 in length of reverse pitch, 2.51 in. overall length, 0.190 in. major dia., 0.145 in. shank dia., 0.315 in. head dia., square drive trim head, type A point |
| #10 x 3" TrapEase® Composite Deck Screw | Face fastening for 2x6 (see Table 2) | 11 TPI with a 0.80 in length of reverse pitch, 2.98 in. overall length, 0.190 in. major dia., 0.145 in. shank dia., 0.315 in. head dia., square drive trim head, type A point |
| #10 x 2-1/2" Envision & Evergrain® Composite Deck Screw | Face fastening for 1x6 (see Table 2) | 12 TPI with a 0.53 in. length of reverse pitch, 2.5 in. overall length, 0.190 in. major dia., 0.125 minor dia., 0.150 in. shank dia., 0.238 / 0.268 in. head dia., star drive trim head, type 17 point |
| EG 1-2-3 (Figure 4) | Hidden Fastening Clips for solid deck boards (see Section Error! Reference source not found.) | Painted metal clip <ul style="list-style-type: none"> – attached to joist with one #6 x 1-1/2 in. screw, 12 TPI with a 1.47 in. overall length, 0.145 in. major dia., 0.088 in shank dia., 0.261 in. head dia., square drive trim head, Type 17 point -- attached to underside of deck board with one #6 x 3/4" screw, 12 TPI, 0.73 in. overall length, 0.145 in. major dia., 0.088 in. shank dia., 0.261 in. head dia., square drive trim head, Type 17 point |
| TigerClaw TC-G Hidden Fastener System (Figure 5) | Hidden Fastening Clips for 1x6 grooved deck boards | Clips are attached to joists with a 1.63 in. long stainless-steel screw (0.164 in. major dia., 0.113 in. minor dia., 0.229 in. dia.) |
| EverClip Hidden Fastener (Figure 6) | Hidden Fastening Clips for 1x6 grooved deck boards | Clips are attached to joists with one #10 x 2-1/2" deck screw (8 TPI, 0.179 in. major dia., 0.126 in. shank dia., 0.323 in. head dia., Philips drive, trim head, Type A point) |

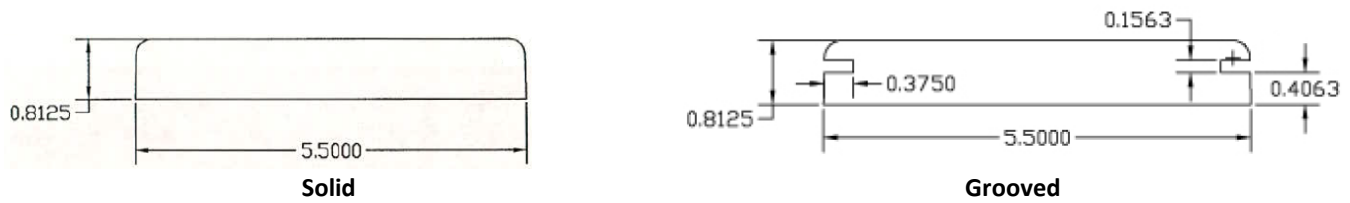


FIGURE 1 – EVERGRAIN® 1X6 BOARD

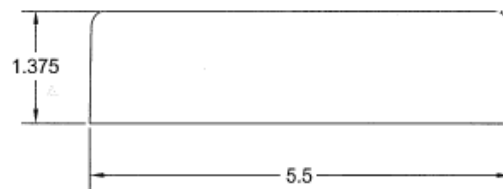


FIGURE 2 – EVERGRAIN® 2X6 BOARD

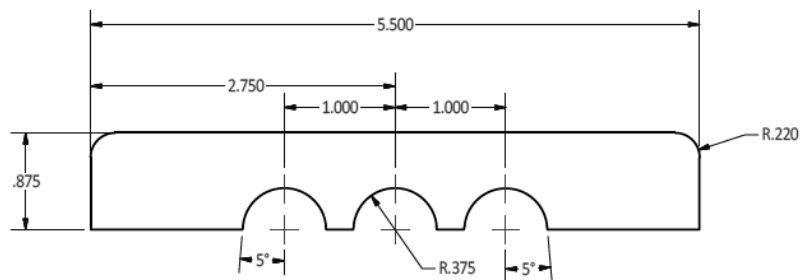


FIGURE 3 – RIDGE CLASSIC 1x6 BOARD



EG 1-2-3 Hidden Fastener System with Fasteners



Hidden Fastener Installation to Bottom Surface of Board



Hidden Fastener Installation to Joist

FIGURE 4 – EG 1-2-3 HIDDEN FASTENER SYSTEM

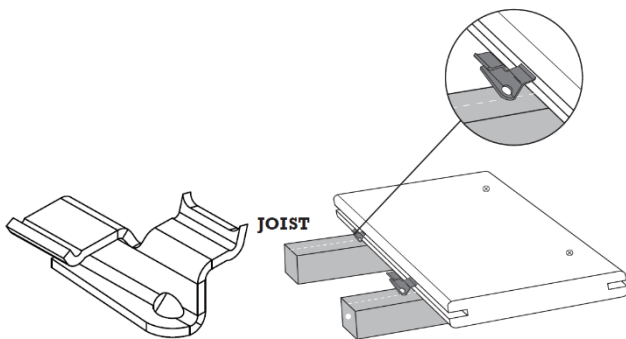


FIGURE 5 – FASTENMASTER TC-G CLIPS



FIGURE 6 – EVERCLIP HIDDEN FASTENER SYSTEM