

Code Compliance Research Report CCRR-1039

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DIVISION 06 00 00 – Wood, Plastics and Composites Section: 06 53 00 – Plastic Decking

REPORT HOLDER:
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REPORT SUBJECT: AURA® Decking Deck Boards: Ultraboard Ultraboard Bullnose

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)

The products described in this report have been evaluated for the following properties:

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

2.0 USES

AURA® Decking Deck Boards are intended for use as a walking surface on exterior decks, balconies, porches, and walkways, including stairs.

3.0 DESCRIPTION

AURA® Decking Deck Boards have sculpted bottom cross-sections, and grooved edges. The deck boards are supplied in two configurations: Ultraboard and Ultraboard Bullnose, and are available in Cedar, Chestnut, and Costal Grey colors. See Tables 1a and 1b and Figure 1.

Ultraclip Fastening Clips are injection molded thermoplastic clips provided for hidden attachment of the deck boards to supports. See Tables 1a and 1b, and Figure 2 and 3.

4.0 PERFORMANCE CHARACTERISTICS AND INSTALLATION

4.1 Performance Characteristics:

- **4.1.1** Uniform Live Load ratings are given in Table 2 for the corresponding deck boards and fasteners indicated.
- **4.1.2** 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 3. Deck boards used as stair treads must be installed in a minimum two-span condition.
- **4.1.3** Wind uplift resistance ratings are given in Table 2 for the corresponding deck boards and fasteners indicated.
- **4.1.4** AURA[®] Decking Deck Boards have a flame spread index of 175 when tested in accordance with ASTM E84. The referenced criterion, AC174, requires a flame spread index not exceeding 200.
- **4.1.5** Materials used are deemed equivalent to preservative treated or naturally durable wood for resistance to weathering effects, attack from Eastern subterranean termites, and fungus decay.
- **4.1.6** Structural performance has been demonstrated for a temperature range from -20°F to 125°F.

4.2 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 governs.







- **4.2.1** The Ultraboard deck boards must be secured at each joist with Ultraclip Fastening Clips (specified in Table 2). Where a final row of clips against perimeters cannot be used, pre-drill and screw deck board into joist from top surface. Attach the deck board with screws spaced 36 inches apart. complications from expansion/contraction, all holes, except the center hole, must be slotted.
- 4.2.2 The grooved edge side of the Ultraboard Bullnose sculpted bottom deck boards must be secured with Ultraclip Fastening Clips (specified in Table 2) at each joist. The nosing face must be facefastened to supporting structure.
- **4.2.3** Table 2 indicates type of fasteners that are to be used for each installation.

5.0 CONDITIONS OF USE

The AURA® Decking Deck Boards identified in this report are deemed to comply with the intent of the provisions of the referenced Building Codes subject to the following conditions:

- **5.1** 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.
- 5.2 The deck boards are limited to use in Type V-B construction.
- 5.3 Deck boards placed at an angle other than 90 degrees to the supporting joist require support framing at a reduced spacing, such that the span of the deck board does not exceed the span identified in Table 2.
- 5.4 The wind uplift resistance rating recognized in this report is based on attachment to No. 2 Structural Grade Spruce-Pine-Fir (SPF). Installation on wood framing with a lesser grading may result in a lower wind uplift rating.
- **5.5** Compatibility of the metal fasteners, metal post mount components, and other hardware with the supporting structure, including chemically-treated wood, is outside the scope of this report and is subject to approval by the Code official.

- **5.6** Where required by the building 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.
- **5.7** The deck boards manufactured are in Mississauga, Ontario, Canada, in accordance with the manufacturer's approved quality control system under a quality control program with inspections by Intertek Testing Services NA, Inc. (AA-647).

6.0 SUPPORTING EVIDENCE

- **6.1** Manufacturer's drawings and installation instructions.
- 6.2 Reports of testing demonstrating compliance with ICC-ES AC174, Acceptance Criteria for Deck Board Span Ratings and Guardrail Systems (Guards and Handrails), dated January 2012 (editorially revised December 2014).
- 6.3 Reports of testing and engineering analysis demonstrating compliance with the performance requirements of ASTM D7032-10a, Specification for Establishing Performance Ratings for Wood-Plastic Composite Deck Boards and Guardrail Systems (Guards or Handrails).
- 6.4 Quality documentation.
- 6.5 Intertek Listing Report Gracious Living Innovations -AURA Decking.

7.0 IDENTIFICATION

AURA® Decking Deck Boards shall be identified with labeling on the individual deck boards that includes the name and/or trademark of the manufacturer; the Research Report number (CCRR-1039) and the Intertek Mark.

8.0 OTHER CODES

This section is not applicable.







9.0 CODE COMPLIANCE RESEARCH REPORT USE

- 9.1 Approval of building products and/or materials can only be granted by a building official have 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 Intertek.
- 9.3 Reference to the Intertek internet website address at https://bpdirectory.intertek.com is recommended to ascertain the current version of status of this report.

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Table 1a - AURA® Decking Deck Boards Product Description

| Decking Plank | Description | Surface Descriptions | Color(s) | |
|------------------------|--|--|-------------------------------|--|
| Ultraboard | 1.250" x 5.5" Sculpted Bottom Grooved Edges | Textured with Embossed Wood Pattern | Cedar, Chestnut | |
| Ultraboard Bullnose | 1.875" x 6" Sculpted Bottom with Grooved Edges | Textured with Embossed Wood Pattern | and Coastal Grey ¹ | |

Coastal Grey colored plank surface is treated with a coating to provide additional color protection under exposure to ultra-violet light.

Table 1b – AURA® Decking Deck Boards Product Description

| Product | WPC Core | PVC Core | Plastic ¹ Core | WPC Cap | Polymer ² Cap | PVC Cap | Full Cap | Semi Cap | Co- Extruded | Mono- Extruded |
|------------------------|-------------|-------------|------------------------------|------------|-----------------------------|---------|-------------|-------------|-----------------|-------------------|
| Ultraboard | | | Х | | Х | | | X | Х | |
| Ultraboard Bullnose | | | Х | | | | | | | Х |

Plastic Core is comprised of polystyrene with flame retardant.

Table 2 – AURA® Decking Ratings

| Decking Plank | Deck Board Span/Load Rating ¹ | Stair Tread Span/Load Rating ² | Fastener ³ | Wind Uplift Resistance ³ |
|---------------------|--|---|---|--|
| Ultraboard | 16/100 | 12/100 | Ultraclip Hidden Fastening Clip with No. 8 x 2 inch (51mm) square or Phillips head stainless steel screw | 107 psf |
| Ultraboard Bullnose | Not used as Deck Board | 12/100 ⁴ | Ultraclip Hidden Fastening Clip with No. 8 x 2 inch (51mm) square or Phillips head stainless steel screw, on grooved edge. No. 8 x 2 inch deck screws every 24 inches through pre-drilled and counter-sunk holes on lower lip of front face | 107 psf |

¹ Span/Load rating is the maximum span in inches and the maximum allowable live load in pounds per square foot (psf).





Polymer Cap is comprised of polystyrene with flame retardant.

² Stair tread span in inches is based on a continuous deck board over two or more equal spans (3 supports).

Wind uplift resistance in pounds per square foot (psf) is based on two fasteners at each support (wood joist) except Grooved Edge Boards which use one hidden fastener located at each joist. Values have been adjusted for wind load duration and end use. No further adjustments shall be made.

⁴ The nosing of the Ultraboard Bullnose plan is supported by No. 2 Structural Grade Spruce-Pine-Fir (SPF).



Figure 1 – AURA® Decking Deck Boards

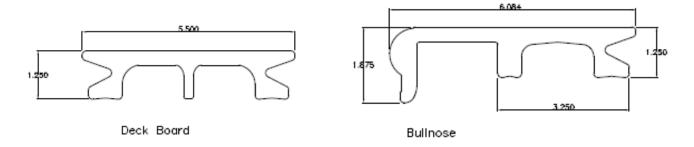


Figure 2 – Ultraclip Hidden Fastener Clip

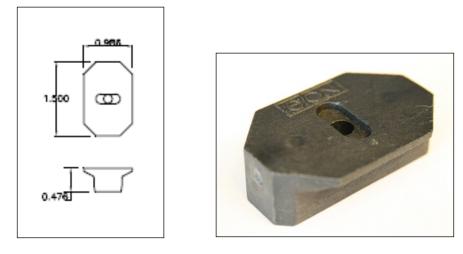


Figure 3 – Stair Tread Installation

