

ICC-ES Evaluation Report


ESR-5017

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<p>DIVISION: 06 00 00— WOOD, PLASTICS AND COMPOSITES</p> <p>Section: 06 50 00— Structural Plastics</p> <p>Section: 06 53 00— Plastic Decking</p>	<p>REPORT HOLDER:</p> <p>HOMELAND VINYL PRODUCTS, INC.</p>	<p>EVALUATION SUBJECT:</p> <p>GORILLA WOOD DECK BOARD</p>	
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1.0 EVALUATION SCOPE

1.1 Compliance with the following codes:

- 2021, 2018 2015, and 2012 [International Building Code® \(IBC\)](#)
- 2021, 2018, 2015, and 2012 [International Residential Code® \(IRC\)](#)

Properties evaluated:

- Structural
- Durability
- Surface-burning characteristics

2.0 USES

The Gorilla Wood deck board described in this report is limited to exterior use as a deck board for balconies, porches, stair treads and decks of Type V-B construction (IBC) and other types of construction in applications where untreated wood is permitted by IBC Section 1406.3, or in structures constructed in accordance with the IRC.

3.0 DESCRIPTION

3.1 General: The Gorilla Wood deck board is manufactured with a solid cellular foam polymer core co-extruded Acrylonitrile Styrene Acrylate cap covering the four sides of the deck boards. The Gorilla Wood deck boards are manufactured with nominal dimensions of 1 by 5 1/2 inches (25.4 mm by 138 mm) and are available in typical lengths of 16, 20 and 24 feet (4878, 6096 and 7315 mm). [Figure 1](#) shows a typical cross section of the deck board.

3.2 Durability: When subjected to weathering, insect attack, and other decaying elements, material used to manufacture the Gorilla Wood deck board is equivalent in durability to preservative-treated or naturally durable lumber when used in locations described in Section 2.0. The Gorilla Wood deck board has been evaluated for structural performance when exposed to a temperature range from -20°F to 125°F (-29°C to 52°C).

3.3 Surface-burning Characteristics: When tested in accordance with ASTM E84, the Gorilla Wood deck board has a flame-spread index of no greater than 200.

4.0 DESIGN AND INSTALLATION

4.1 General:

Installation of the Gorilla Wood deck board must comply with this report and the manufacturer's published installation instructions. The manufacturer's published installation instructions must be available at the jobsite at all times during installation.

4.2 Deck Boards:

4.2.1 General: The deck boards are fastened to wood framing using face screws or angled edge screws. The deck boards are to be installed perpendicular to 16" O.C. framing and maybe installed up to 45 deg. angle on 12" O.C. framing. Refer to [Figures 2](#) and [3](#) for face and angled edge installations of the Gorilla Wood deck boards.

4.2.2 Structural: The Gorilla Wood deck board, when used as a deck board and installed at a maximum center-to-center spacing of the supporting framing, will have allowable capacities as noted in [Table 1](#). The deck boards, when used as stair treads, are sufficient to resist the code-prescribed concentrated load of 300 lbf (1.33 kN) when installed at a maximum center-to-center spacing as indicated in [Table 2](#).

5.0 CONDITIONS OF USE:

The Gorilla Wood deck board described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1** The Gorilla Wood deck board described in this report is limited to exterior use as a deck board for balconies, porches, stair treads and decks of Type V-B construction (IBC) and other types of construction in applications where untreated wood is permitted by IBC Section 1406.3, and structures constructed in accordance with the IRC. The Gorilla Wood deck boards used as stair treads must be installed over a minimum of two spans.
- 5.2** Installation of Gorilla Wood deck board must comply with this report, the manufacturer's published installation instructions and the applicable code. Only the approved fasteners and fastener configurations described in [Figure 4](#) of this report can be used to install the Gorilla Wood deck board. When the manufacturer's published installation instructions differ from this report, this report governs.
- 5.3** The use of the Gorilla Wood deck board as a component of a fire-resistance-rated assembly is outside the scope of this report.
- 5.4** The compatibility of the fasteners and other metal hardware with the supporting construction, including chemically treated wood, is outside the scope of this report.
- 5.5** Adjustment factors outlined in the ANSI/AWC *National Design Specification*[®] (NDS[®]) for Wood Construction and applicable codes must not apply to the allowable capacity and maximum spans for the Gorilla deck board.
- 5.6** The Gorilla Wood deck board must be fastened directly to supporting joists. Where required by the code official, engineering calculations and construction documents consistent with this report must be submitted for approval. The calculations must verify that the supporting joists comply with the applicable building code requirements and are adequate to resist the loads imparted upon the deck board from the products and systems discussed in this report. The documents must contain details of the attachment to the supporting structure consistent with the requirements of this report. The documents must be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.
- 5.7** The Gorilla Wood deck board is manufactured at a Homeland Vinyl Products, Inc.'s facility located in Surgoinsville, Tennessee, under a quality-control program with inspections by ICC Evaluation Service, LLC.

6.0 EVIDENCE SUBMITTED

Data in accordance with the [ICC-ES Acceptance Criteria for Deck Board Span Ratings and Guardrail Systems \(Guards and Handrails\) \(AC174\)](#), dated January 2012 (editorially revised April 2021).

7.0 IDENTIFICATION

- 7.1** The Gorilla Wood Deck Board described in this report is identified on each package by a label bearing the report holder's name (Homeland Vinyl Products, Inc.); the product name; the date of manufacture; the span ratings for use as deck board and stair tread; and the ICC-ES mark of conformity or the ICC-ES evaluation report number (ESR-5017).
- 7.2** The report holder's contact information is the following:

HOMELAND VINYL PRODUCTS, INC.
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BIRMINGHAM, ALABAMA 35217
(205) 854-4330
www.homelandvinyl.com
engineering@homelandvinyl.com

TABLE 1—ALLOWABLE MAXIMUM SPAN LOAD-SPAN RATING AND WIND UPLIFT CAPACITIES

DECK BOARD	FASTENING SCREWS	Fastener Orientation	MAXIMUM SPAN (inch)	ALLOWABLE LOAD-SPAN RATING (psf)	WIND UPLIFT CAPACITY (psf)	
					12-inch o.c. framing	16-inch o.c. framing
1" x 5 1/2" Gorilla Deck Board	No. 10 x 2 3/4 CAP-TOR xd Epoxy coated	Face Installation	16	100	460 ^{3,4}	490 ^{3,5}
	No. 9 x 2 1/2 Gripe Rite Type 17 point star drive	Face Installation	16	100	470 ^{3,4}	500 ^{3,5}
	No. 9 x 2 1/2" Kameleon GRK	Face Installation	16	100	480 ^{3,4}	510 ^{3,5}
	No. 7 x 2 3/8" CAMO Edge	Angled Edge Installation ⁶	16	100	480 ^{3,4}	510 ^{3,5}

For SI: 1 inch = 25.4mm, 1 psf = 47.9 Pa.

¹ Maximum span must be measured center-to-center of the supporting construction.

² Maximum allowable capacity has been adjusted for durability. No further increases are permitted.

³ The tabulated wind uplift capacity values are based on test results with a factor of safety of 3.0.

⁴ The tabulated wind uplift capacity values are for deck boards installed perpendicular to framing and up to a angle of 45 degree.

⁵ The tabulated wind uplift capacity values are for deck boards installed perpendicular to framing.

⁶ Angled edge installation screws must be installed using installation tool provided by the screw manufacturer.

TABLE 2—MAXIMUM STAIR TREAD SPAN

DECK BOARD	FASTENING SCREWS	SPAN CONDITION	MAXIMUM SPAN (in.) ^{1, 2}
1" x 5 1/2" Gorilla Wood Deck Board	No. 10 x 2 3/4 CAP-TOR xd Epoxy coated	Two-span	12

¹ Maximum span is the center-to-center distance of the supporting stair stringers.

² Deck boards must be installed at 90-degree angle to the supporting stair stringers.

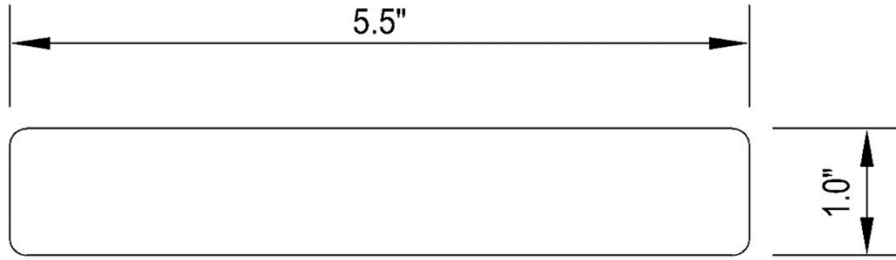


FIGURE 1—GORILLA WOOD DECK BOARD PROFILE

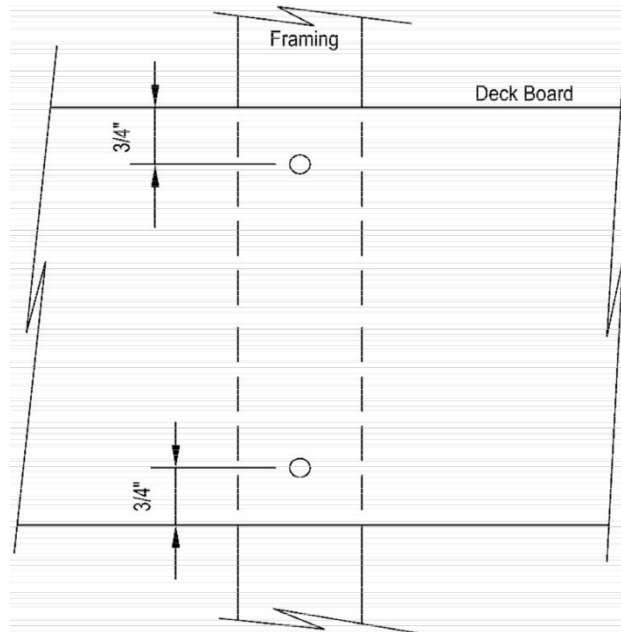


FIGURE 2—INSTALLATION OF GORILLA WOOD DECK BOARD WITH FACE FASTENING

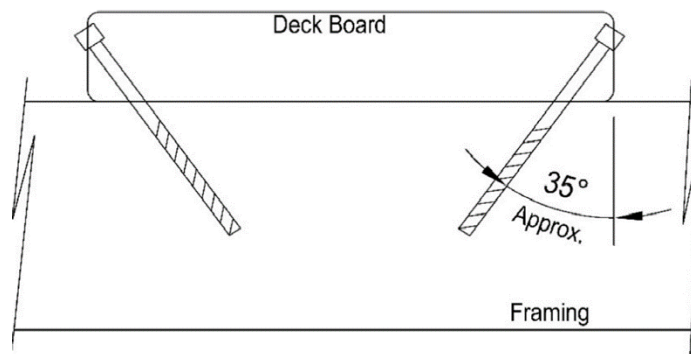


FIGURE 3—INSTALLATION OF GORILLA WOOD DECK BOARD WITH ANGLED EDGE FASTENING



Grip Rite #9x1-1/2" Deck Screw



Kameleon GRK Deck Screw



CAMO Angled Edge Deck Screw



Starborn Deckfast CAP-TOR xd Screw



Light Gray



Dark Gray



Adobe



Chestnut

FIGURE 4—APPROVED FASTENERS AND DECK BOARD COLORS