

# Code Compliance Research Report CCRR-0137

Issue Date: 05-08-2009 Revision Date: 05-10-2023 Renewal Date: 05-31-2024

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

## **REPORT HOLDER:**

VEKA, Inc. 100 VEKA Drive Fombell, Pennsylvania 16123 (800) 654-5589 www.vekainc.com

## **REPORT SUBJECT:**

VEKAdeck™ Decking Planks

## **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 sections cited. Section numbers in earlier editions may differ.

**1.2** VEKAdeck<sup>™</sup> Decking Planks have been evaluated for the following properties:

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

**1.3** VEKAdeck<sup>™</sup> Decking Planks are intended for use as a walking surface on exterior decks, balconies, porches, and walkways, including stairs, 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 [1406.3], where fire-resistance

rated floor construction is not required for the deck or balcony.

## 2.0 STATEMENT OF COMPLIANCE

VEKAdeck<sup>™</sup> Decking Planks 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 6.0.

# 3.0 DESCRIPTION

**3.1** VEKAdeck<sup>™</sup> Decking Planks are co-extruded and consist of a common composite material of glass-filled cellular Polyvinyl Chloride (PVC) with a PVC capstock in the following colors; Khaki, Almond, Gray, White, Mocha and Walnut.

**3.2** Profiles - *VEKAdeck™ Decking Planks* have a solid crosssection with nominal dimensions of 1 inch thick by 5-1/2 inches wide. See Figure 1.

**3.3** Walking Surface - VEKAdeck<sup>™</sup> Decking Planks use an embossed simulated wood-grain pattern surface.

# 4.0 PERFORMANCE CHARACTERISTICS

**4.1** VEKAdeck<sup>™</sup> planks are rated for a uniform live load of 100 lb/ft.2 when installed on support framing spaced at 16 inches.

**4.2** Deck boards used as stair treads are rated for the codeprescribed concentrated load equal to 300 lb. when installed with a maximum span of 12 inches. Deck boards used as stair treads shall be installed in a minimum two-span condition.

**4.3** VEKAdeck<sup>™</sup> planks have a wind uplift resistance rating based on the fastening system used as identified in Table 1 when installed on support framing spaced 16 inches.

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



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**4.5** Materials used 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.

## 5.0 INSTALLATION

#### 5.1 General:

VEKAdeck<sup>™</sup> Decking Planks 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** Deck board attachment may be made by the methods identified in Table 1.

**5.3** 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 inches.

#### 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 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 fasteners, metal post mount components and other

hardware components is subject to approval by the code official.

**6.5** VEKAdeck<sup>™</sup> Decking Planks 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 demonstrating compliance with ICC-ES AC174, Acceptance Criteria for Deck Board Span Ratings and Guardrail Systems (Guards and Handrails), revised December 2014.

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

**7.4** Intertek Listing Report <u>VEKAdeck Decking Planks</u>, on the <u>Intertek Directory of Building Products</u>.

## 8.0 IDENTIFICATION

**8.1** VEKAdeck<sup>™</sup> Decking Planks are identified with the manufacturer's name (VEKA, Inc.) address and telephone number, the product name (VEKAdeck<sup>™</sup> Decking Planks), the statement "See CCRR-0137 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-0137).



#### 9.0 OTHER CODES

This section is not applicable.



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

# TABLE 1: FASTENING SCHEDULE AND WIND UPLIFT

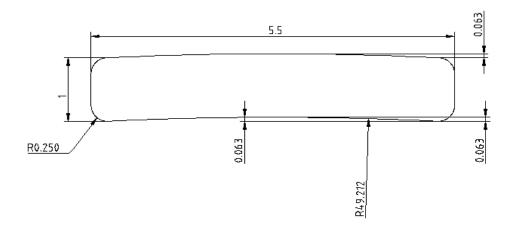
Fastener	Attachment	Wind Uplift
Face Fastened	Two (2) #8 x 2-1/2 inch deck screws at each supporting joist. Minimum edge and end distance for fasteners is 1 inch from both the edge and the end of each board	150 lb/ft. <sup>2</sup>
Tiger Claw <sup>®</sup> TC-3S	One (1) #10 x 2 inch stainless steel bugle head screw. One (1) clip per joist. Outboard edges are attached using one (1) #8 x 2-1/2 inch deck screws at each joist.	150 lb/ft. <sup>2</sup>
Grabber <sup>®</sup> Deckmaster <sup>®</sup>	Brackets fastened to joists every 3-1/2 inches using #8 x 1 inch pan head screws. (Brackets are placed on alternating sides of the joists. See Figure 4.) VEKAdeck™ is then fastened to the brackets every 2-1/4 inches using #12 x 1 inch flat head screws.	150 lb/ft. <sup>2</sup>

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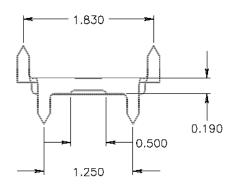


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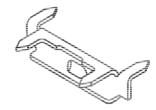


FIGURE 2 – TIGER CLAW<sup>®</sup> TC-3S

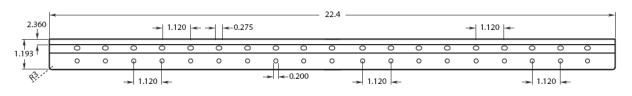


FIGURE 3 – GRABBER® DECKMASTER®







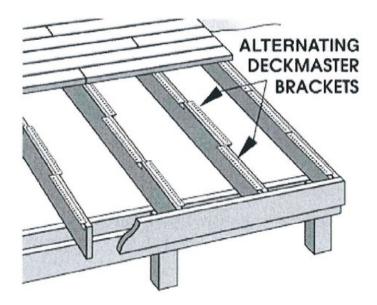


FIGURE 4 - GRABBER® DECKMASTER® INSTALLATION



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