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# Code Compliance Research Report
# CCRR-0326

REVISED

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BY:

**Issue Date: 07-27-2020**
**Revised Date: 09-25-2024**
**Renewal Date: 08-31-2025**

**DIVISION: 06 00 00 – WOOD, PLASTICS AND COMPOSITES**
**Section: 06 63 00 – Plastic Railings**

**REPORT HOLDER:**
**Shoreline Vinyl Systems**
**1114 Park Lane**
**Denton, Maryland 21629**
**410-364-9050**
www.shorelinevinyl.com

**ADDITIONAL LISTEES:**

**TW Perry**
**8101 Snouffer School Road**
**Gaithersburg, Maryland 20879**
**888-897-3779**
www.twperry.com

**Wolf Home Products**
**20 West Market Street**
**York, Pennsylvania 17401**
**800-388-9353**
www.wolfhomeproducts.com

**REPORT SUBJECT:**
**Shoreline PVC Railing Assemblies**
***100 Series (Traditional Rail)***
***200 Series (Deckboard Rail)***
***300 Series (Warrior Rail, Builders Mark Rail)***
***600 Series (Breadloaf Rail)***

## 1.0 SCOPE OF EVALUATION

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

- 2024, 2021, 2018 *International Building Code®* (IBC)
- 2024, 2021, 2018 *International Residential Code®* (IRC)

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

**1.2** The *Shoreline PVC Railing Assemblies* have been evaluated for the following properties:

- Structural Performance
- Durability
- Surface Burning

**1.3** The *Shoreline PVC Railing Assemblies* have been evaluated for the following uses:

- The *Shoreline PVC Railing Assemblies* are guards (aka. guardrails) under the definitions of the referenced codes and are intended for use on elevated walking areas in buildings and walkways, including stairs and ramps, as required by the referenced codes.
- Guard assemblies are provided as level guards for level walking areas such as decks, balconies and porches, and sloped guards for open sides of stairways.
- Guard assemblies recognized in this report may be used in One- and Two-Family Dwellings regulated by the IRC and all construction types regulated by the IBC in accordance with IBC Section 705.2. Guards less than 42 inches high are limited to use in One- and Two-Family Dwellings (IRC). See Tables 1 through 4 for additional restrictions based upon Use and Occupancy Classification

## 2.0 STATEMENT OF COMPLIANCE

The *Shoreline PVC Railing Assemblies* 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.

### 2.1 2024 IBC and IRC Evaluation Reports

The Intertek CCRR is an *Evaluation Report* for approval of an alternate material, design, or method of construction in

accordance with Section 104.2.3.6.1 of the 2024 IBC and Section R104.2.2.6.1 of the 2024 IRC.

## 3.0 DESCRIPTION

**3.1** The *Shoreline 100 Series (Traditional Rail)* is an assemblage of white co-extruded and molded components, with aluminum reinforcements and nylon mounting brackets. See Figure 1.

**3.1.1** Top rails are nominally 3-1/2 inches high by 3-1/2 inches wide with 0.08-inch nominal wall thickness, "T" shaped extruded PVC rail profile, reinforced with an aluminum "H" or "A" insert.

**3.1.2** Bottom rails are nominally 2 inches high by 3-1/2 inches wide, extruded PVC rail profile, reinforced with an aluminum "T" insert. The aluminum insert is optional when the railing system is limited to maximum 96- x 36-inch level installations under the IRC. See Table 1.

**3.2** The *Shoreline 200 Series (Deckboard Rail)* are an assemblage of white co-extruded and molded components, with aluminum reinforcements and nylon mounting brackets. See Figure 2.

**3.2.1** Top rails are nominally 2 inches high by 3-1/2 inches wide, extruded PVC rail profile, reinforced with an aluminum "A" insert.

**3.2.2** Bottom rails are nominally 2 inches high by 3-1/2 inches wide, extruded PVC rail profile, reinforced with an aluminum "T" insert.

**3.3** The *Shoreline 300 Series (Warrior Rail, Builders Mark Rail)* is an assemblage of white co-extruded and molded components, with aluminum reinforcements and nylon mounting brackets. See Figure 3.

**3.3.1** Top rails are nominally 3 inches high by 1-3/4 inches wide with 0.104-inch nominal wall thickness, "T" shaped extruded PVC rail profile, reinforced with an aluminum insert.

**3.3.2** Bottom rails for the *300 Series* and *Warrior Rail* are nominally 2-1/4 inches high by 2 inches wide, extruded PVC rail profile, reinforced with an aluminum "H" insert. The *Builders Mark Rail* bottom rails are nominally 3-1/2 inches high by 2 inches wide, extruded PVC rail profile, reinforced with an aluminum "T" insert.

**3.4** The *Shoreline 600 Series (Breadloaf Rail)* is an assemblage of white co-extruded and molded components, with aluminum reinforcements and nylon mounting brackets. See Figure 4.

**3.4.1** Top rails are nominally 2-1/4 inches high by 2-13/16 inches wide with 0.08-inch nominal wall thickness, bread loaf shaped extruded PVC rail profile, reinforced with an aluminum insert.

**3.4.2** Bottom rails are nominally 2-1/4 inches high by 2 inches wide, extruded PVC rail profile, reinforced with an aluminum "H" insert, or alternatively a nominally 3-1/2 inches high by 2 inches wide, extruded PVC rail profile, reinforced with an aluminum "T" insert.

**3.5** Infill for *Shoreline PVC Railing Assemblies* are provided in three styles: square PVC pickets, PVC spindles, and round aluminum pickets. Rails are routed to the shape of the infill profile to receive the infill. See Figure 5.

**3.5.1** Square PVC pickets are hollow, extruded PVC, 1-3/8 inch or 1-1/2-inch square, with 0.07-inch nominal wall thickness.

**3.5.2** PVC spindles are hollow, thermoformed PVC with 1-1/4 inch or 1-1/2-inch square ends, and 0.06-inch nominal wall thickness.

**3.5.3** Round aluminum pickets are hollow, extruded aluminum of 3/4 inch diameter and 0.05-inch nominal wall thickness.

**3.6** Top and bottom rails are connected to support posts using nylon brackets, as defined in Table 5. Support posts may be sleeved conventional wood posts, *LMT Galvanized* post mounts or *LMT Blu-Mount* post mounts. The LMT post mounts include PVC post guides (mounting blocks) for securing the rail brackets.

**3.6.1** *LMT Galvanized* post mounts consist of a 2-inch square galvanized steel tube with a 0.073-inch-thick wall, continuously fillet welded to a 3-1/2-inch square, 0.300-inch-thick steel base plate. Four 0.40-inch diameter holes

are located at each corner of the plate, with the center of the holes 0.40 inches from each edge.

**3.6.2** *LMT Blu-Mount* post mounts consist of a 2-inch square steel tube with 0.152-inch-thick wall, continuously fillet welded to a 3-1/2-inch square, 0.623-inch-thick steel base plate. Four 0.38-inch diameter holes are located at each corner of the plate, with the center of the holes 0.38 inches from each edge.

## 4.0 PERFORMANCE CHARACTERISTICS

**4.1** The *Shoreline PVC Railing Assemblies* described in this report have demonstrated the capacity to resist the design loads specified in Chapter 16 of the IBC, as well as Section R301 of the IRC when tested in accordance with ICC-ES AC174.

**4.2** Structural performance has been demonstrated for a temperature range from -20°F to 125°F.

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

**4.4** Materials used in the railing assemblies have a flame spread index not exceeding 200 when tested in accordance with ASTM E84.

## 5.0 INSTALLATION

The *Shoreline PVC Railing Assemblies* 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** Railing assemblies consist of top and bottom rails with pre-routed holes to receive infill. Aluminum railing reinforcements are inserted in the rails during assembly as specified for the type and length of railing (see Tables 1 through 4). Aluminum insert lengths must be the same length as the PVC railings to assure bracket screws penetrate the aluminum inserts.

**5.2** Railings are secured to sleeved 4x4 wood posts, *LMT Galvanized* post mounts, or *LMT Blu-Mount* post mounts with nylon brackets and stainless-steel screws. The wood in the supporting structure shall have a specific gravity of 0.55 or greater (Southern Yellow Pine or better) and a minimum thickness to allow full penetration of the bracket mounting screws. Rail attachment shall be in accordance with Table 5.

**5.3** The *LMT Galvanized* and *LMT Blu-Mount* post mounts may be surface mounted to concrete utilizing four anchor bolts. The type and length of the anchor bolts is dependent upon the material and condition of the supporting structure and is not within the scope of this report. See Section 6.0, Conditions of Use for additional requirements.

## 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** See Section 1.3 for construction type(s) and use classifications.

**6.3** Conventional wood railing supports, including 4x4 posts and framing, are not within the scope of this report and are subject to evaluation and approval by the building official. Supports must satisfy the design load requirements specified in Chapter 16 of the IBC. Supports and framing must provide suitable material for anchorage of the rail brackets and post mount, respectively. Where required by the building official, engineering calculations and details shall be provided.

**6.4** Concrete anchors and anchoring systems for use with the *LMT Galvanized* and *LMT Blu-Mount* post mounts are not within the scope of this report and are subject to evaluation and approval by the building official. Anchors must satisfy the design load requirements specified in Chapter 16 of the building code and must meet the following minimum requirements:

**6.4.1** A minimum of four anchor bolts must be used and located in the four pre-drilled holes in the post base plate.

**6.4.2** The anchors must be stainless steel, galvanized steel or other approved material compatible with the steel post mount system.

**6.4.3** The anchor bolts must have a minimum diameter of 3/8 inches and utilize flat washers. The type and length of

the anchor bolts is dependent upon the material and condition of the supporting structure and is not within the scope of this report.

**6.4.4** When the supporting structure is a wood framed deck, installation must include anchorage to suitable structural framing. Decking is not considered structural framing, and anchorage to decking alone is not an approved installation method.

**6.4.5** Where required by the building official, engineering calculations and details shall be provided. The calculations shall verify that the anchorage and supporting structure complies with the building code for the type and condition of the supporting construction.

**6.5** Any component or configuration not identified in this report has not been evaluated for performance and/or compliance to the referenced codes. Identification of such components with the CCRR program mark or number is prohibited.

**6.6** Only those types of fasteners and fastening methods described in this report have been evaluated for the installation of the Shoreline Vinyl Railing Assemblies; other methods of attachment are outside the scope of this report.

**6.7** Compatibility of fasteners and other installation hardware with the supporting construction including treated wood is not within the scope of this report.

**6.8** The *Shoreline PVC Railing Assemblies* 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** Reports of testing and engineering analysis demonstrating compliance with the performance requirements of ASTM D7032-21, Standard Specification for Establishing Performance Ratings for Wood-Plastic Composite and Plastic Lumber Deck Boards, Stair Treads, Guards, and Handrails.

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

**7.5** Intertek Listing Report "Shoreline Vinyl Systems - 100, 200, 300, 600 Series PVC Guardrail Systems", on the Intertek Directory of Building Products.

## 8.0 IDENTIFICATION

The *Shoreline PVC Railing Assemblies* are identified with the manufacturer's name, address and telephone number, the product name, the statement "See CCRR-0326 for uses and performance levels.", the phrase "For Use in One- and Two-Family Dwellings Only" for the applicable railing assemblies (See Tables 1 through 4), the Intertek Control Number, the Intertek Mark as shown below, and the Code Compliance Research Report number (CCRR-0326).

CODE COMPLIANCE
Intertek
CCRR-0326

## 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.

**TABLE 1 – 100 SERIES (TRADITIONAL RAIL) PVC RAILING ASSEMBLIES FOR USE GROUP CLASSIFICATIONS**

| Type | Maximum Railing Dimensions [1] [3] | Top Rail Aluminum Reinforcement | Support Post [2] | Use Group Classification |
|---|---|---|---|---|
| Level | 96 x 42 inches | Aluminum "H" profile with 0.085-inch nominal wall thickness | Conventional 4x4 wood post or *LMT Blu-Mount* post mount | IBC – All Use Groups IRC – One and Two-Family Dwellings |
| Stair | 94 x 42 inches | Aluminum "H" profile with 0.085-inch nominal wall thickness | Conventional 4x4 wood post or *LMT Blu-Mount* post mount | |
| Level | 96 x 36 inches [4] | Aluminum "A" profile with 0.060-inch nominal wall thickness | Conventional 4x4 wood post or *LMT Galvanized* post mount | IRC – One and Two-Family Dwellings |
| | 120 x 36 inches | Aluminum "H" profile with 0.085-inch nominal wall thickness | Conventional 4x4 wood post or *LMT Galvanized* post mount | |
| Stair | 117 x 36 inches | Aluminum "A" profile with 0.085-inch nominal wall thickness | Conventional 4x4 wood post or *LMT Galvanized* post mount | |

[1] Level rail lengths are maximum clear length between supports. Railing height is the minimum installed height from walking surface to top of top rail. Stair rail lengths are the sloping clear distance between supports.

[2] Anchorage of wood posts and post mounts to the supporting structure is not included in the scope of this report. See Section 6.4 for conditions of use.

[3] Bottom rails are 2-inch x 3.5-inch profile reinforced with an aluminum "T" profile with 0.055-inch nominal wall thickness, unless otherwise noted.

[4] Bottom rail reinforcement is optional for this configuration.

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**TABLE 2 – 200 SERIES (DECKBOARD RAIL) PVC RAILING ASSEMBLIES FOR USE GROUP CLASSIFICATIONS**

| Type | Maximum Railing Dimensions [1] | Top Rail Aluminum Reinforcement | Support Post [2] | Use Group Classification |
|---|---|---|---|---|
| Level | 120 x 42 inches | Aluminum "A" profile with 0.085-inch nominal wall thickness | Conventional 4x4 wood post or *LMT Blu-Mount* post mount | IBC – All Use Groups IRC – One and Two-Family Dwellings |
| Stair | 94 x 42 inches | Aluminum "A" profile with 0.085-inch nominal wall thickness | Conventional 4x4 wood post or *LMT Blu-Mount* post mount | |
| Level | 96 x 36 inches | Aluminum "A" profile with 0.060-inch nominal wall thickness | Conventional 4x4 wood post or *LMT Galvanized* post mount | IRC – One and Two-Family Dwellings |

[1] Level rail lengths are maximum clear length between supports. Railing height is the minimum installed height from walking surface to top of top rail. Stair rail lengths are the sloping clear distance between supports. Stair heights indicate minimum allowed height as measured vertically from the leading edge of the stair nose.

[2] Anchorage of wood posts and post mounts to the supporting structure is not included in the scope of this report. See Section 6.4 for conditions of use.

[3] Bottom rails are 2-inch x 3.5-inch profile reinforced with an aluminum "T" profile with 0.055-inch nominal wall thickness.

**TABLE 3 – 300 SERIES (WARRIOR RAIL, BUILDERS MARK RAIL) PVC RAILING ASSEMBLIES FOR USE GROUP CLASSIFICATIONS**

| Type | Maximum Railing Dimensions [1] | Top Rail Aluminum Reinforcement | Support Post [2] | Use Group Classification |
|---|---|---|---|---|
| Level | 96 x 42 inches | Aluminum profile with 0.100-inch nominal wall thickness | Conventional 4x4 wood post or *LMT Blu-Mount* post mount | IBC – All Use Groups<br>IRC – One and Two-Family Dwellings |
| Stair | 89-1/2 x 42 inches | Aluminum profile with 0.100-inch nominal wall thickness | | |
| Level | 96 x 42 inches | Aluminum profile with 0.070-inch nominal wall thickness | Conventional 4x4 wood post or *LMT Galvanized* post mount | IRC – One and Two-Family Dwellings |
| | 120 x 42 inches | Aluminum profile with 0.100-inch nominal wall thickness | | |
| Stair | 95-1/2 x 42 inches | Aluminum profile with 0.070-inch nominal wall thickness | Conventional 4x4 wood post or *LMT Galvanized* post mount | |
| | 119 x 42 inches | Aluminum profile with 0.100-inch nominal wall thickness | Conventional 4x4 wood post or *LMT Blu-Mount* post mount | |

[1] Level rail lengths are maximum clear length between supports. Railing height is the minimum installed height from walking surface to top of top rail. Stair rail lengths are the sloping clear distance between supports. Stair heights indicate minimum allowed height as measured vertically from the leading edge of the stair nose.

[2] Anchorage of wood posts and post mounts to the supporting structure is not included in the scope of this report. See Section 6.4 for conditions of use.

[3] Bottom rails are one of two options:

- 300 Series and Warrior Rail: 2-inch x 2.25-inch profile reinforced with aluminum "H" profile with 0.055-inch nominal wall thickness
- Builders Mark Rail: 2-inch x 3.5-inch profile reinforced with an aluminum "T" profile with 0.055-inch nominal wall thickness.

**TABLE 4 – 600 SERIES (BREADLOAF RAIL) PVC RAILING ASSEMBLIES FOR USE GROUP CLASSIFICATIONS**

| Type | Maximum Railing Dimensions [1] | Top Rail Aluminum Reinforcement | Support Post [2] | Use Group Classification |
|---|---|---|---|---|
| Level | 96 x 42 inches | Aluminum profile with 0.100-inch nominal wall thickness | Conventional 4x4 wood post or *LMT Blu-Mount* post mount | IBC – All Use Groups<br>IRC – One and Two-Family Dwellings |
| Stair | 94 x 42 inches | Aluminum profile with 0.100-inch nominal wall thickness | | |
| Level | 96 x 42 inches | Aluminum profile with 0.070-inch nominal wall thickness | Conventional 4x4 wood post or *LMT Galvanized* post mount | IRC – One and Two-Family Dwellings |
| | 120 x 42 inches | Aluminum profile with 0.100-inch nominal wall thickness | | |
| Stair | 118-1/2 x 42 inches | Aluminum profile with 0.100-inch nominal wall thickness | Conventional 4x4 wood post or *LMT Blu-Mount* post mount | |

[1] Level rail lengths are maximum clear length between supports. Railing height is the minimum installed height from walking surface to top of top rail. Stair rail lengths are the sloping clear distance between supports. Stair heights indicate minimum allowed height as measured vertically from the leading edge of the stair nose.

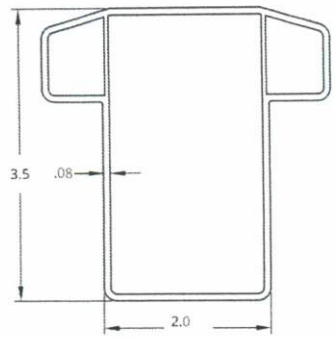
[2] Anchorage of wood posts and post mounts to the supporting structure is not included in the scope of this report. See Section 6.4 for conditions of use.

[3] Bottom rails are one of two options:

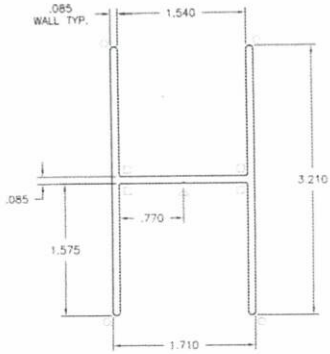
- 2-inch x 2.25-inch profile reinforced with aluminum "H" profile with 0.055-inch nominal wall thickness
- 2-inch x 3.5-inch profile reinforced with an aluminum "T" profile with 0.055-inch nominal wall thickness.

**TABLE 5 – FASTENING SCHEDULE**

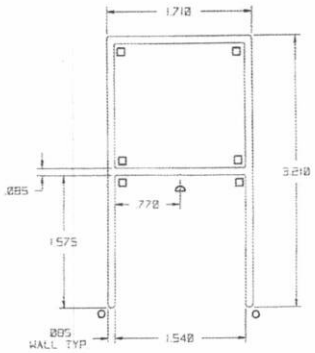
| CONNECTION | | | FASTENER | QUANTITY |
|---|---|---|---|---|
| 100 Series | Top Rail Bracket | to Post | #10-10 by 1-1/2 inch (0.121-inch minor diameter), pan-head, zinc-coated, self-drilling screws | 4 |
| | | to Rail | #10-16 by 1 inch (0.141-inch minor diameter), pan-head, zinc-coated, self-drilling screws | 4 |
| | Bottom Rail Bracket | to Post | #10-10 by 1-1/2 inch (0.121-inch minor diameter), pan-head, zinc-coated, self-drilling screws | 6 |
| | | to Rail | #10-16 by 1 inch (0.141-inch minor diameter), pan-head, zinc-coated, self-drilling screws | 4 |
| 200 Series | Top / Bottom Rail Bracket | to Post | #10-10 by 1-1/2 inch (0.121-inch minor diameter), pan-head, zinc-coated, self-drilling screws | 6 |
| | | to Rail | #10-16 by 1 inch (0.141-inch minor diameter), pan-head, zinc-coated, self-drilling screws | 4 |
| 300 Series 600 Series | Top Rail Bracket | to Wood Post | #10-10 by 1-1/2 inch (0.118-inch minor diameter), pan-head, zinc-coated, self-drilling screws | 3 |
| | | to LMT Post | #10-16 by 1 inch (0.140-inch minor diameter), pan-head, zinc-coated, self-starting screws | 3 |
| | 300 Series, 600 Series, and Warrior Rail: 2" x 2-1/4" Bottom Rail Bracket | to Wood Post | #10-10 by 1-1/2 inch (0.118-inch minor diameter), pan-head, zinc-coated, self-drilling screws | 3 |
| | | to LMT Post | #10-16 by 1 inch (0.140-inch minor diameter), pan-head, zinc-coated, self-starting screws | 3 |
| | | to Rail | #10-16 by 1 inch (0.140-inch minor diameter), pan-head, zinc-coated, self-starting screws | 2 |
| | 600 Series and Builders Mark Rail: 2" x 3-1/2" Bottom Rail Bracket | to Post | #10-10 by 1-1/2 inch (0.121-inch minor diameter), pan-head, zinc-coated, self-drilling screws | 6 |
| | | to Rail | #10-16 by 1 inch (0.141-inch minor diameter), pan-head, zinc-coated, self-drilling screws | 4 |
| 100 Series 200 Series 300 Series 600 Series | Baluster to Top/Bottom Rail | | Slip fit into routing - No mechanical connection | - |
| | Support Block to Bottom Rail | | Slip fit into routing - No mechanical connection | - |
| | Post Mount to Top Stabilizer (internal component) | | #10-16 by 1 inch (0.140-inch minor diameter), pan-head, zinc-coated, self-starting screw | 1 |
| | Top Stabilizer (internal component) to Top Stabilizer | | 1/4-20 by 1-1/4-inch hex head stainless steel bolt with nut, plate washer and lock washer | 1 |
| | Bottom PVC Post Stabilizer to Post Mount | | #10-16 by 1 inch (0.140-inch minor diameter), pan-head, zinc-coated, self-starting screws | 1 |



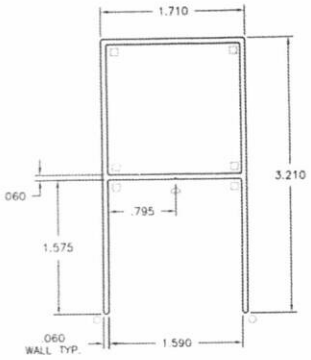

Top Rail



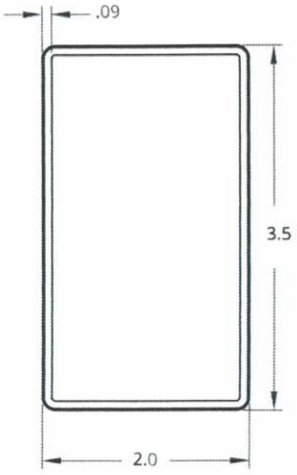

0.085-inch Top Rail
"H" Insert



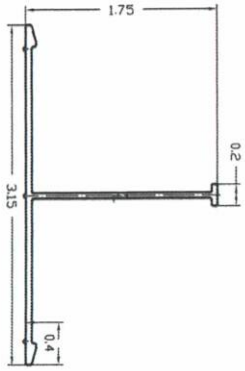

0.085-inch Top Rail
"A" Insert



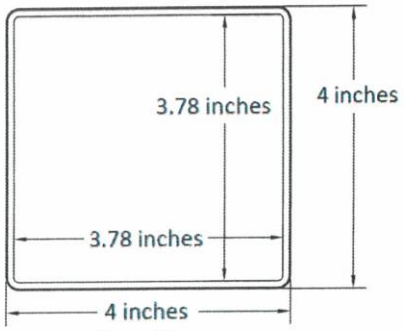

0.060-inch Top Rail
"A" Insert




Bottom Rail

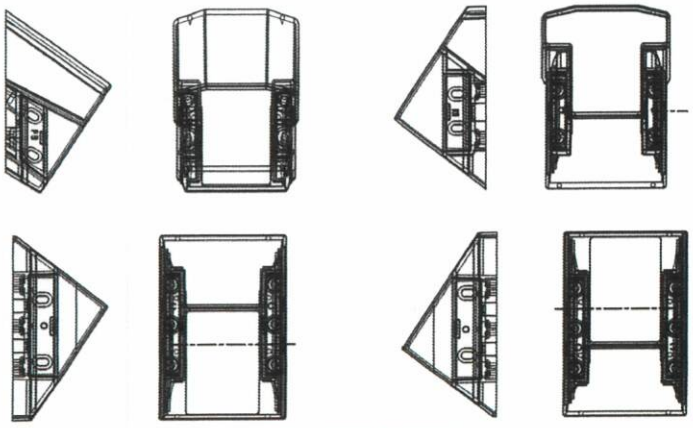



0.055-inch Bottom Rail
"T" Insert



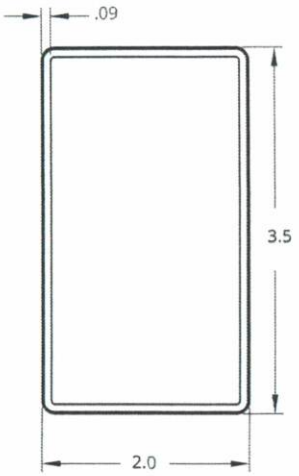

Post Sleeve

Level – Rail Brackets

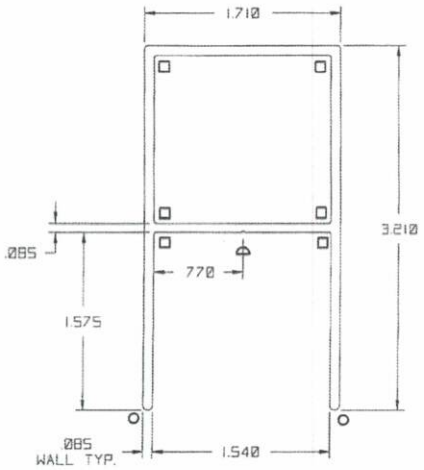


Stair – Rail Brackets

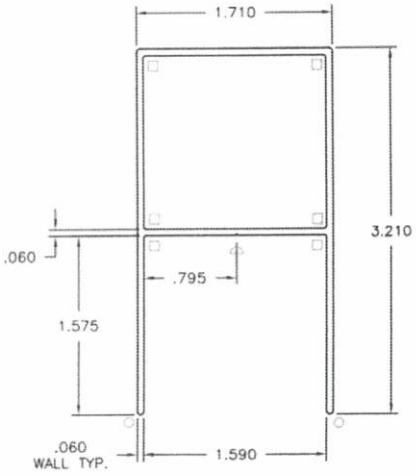
FIGURE 1 – 100 SERIES PVC RAILING PROFILES AND BRACKETS



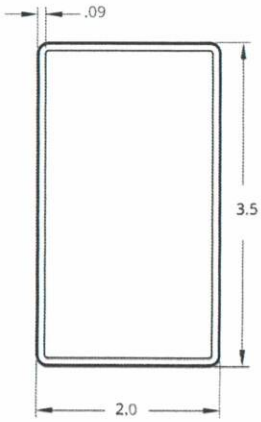

Top Rail



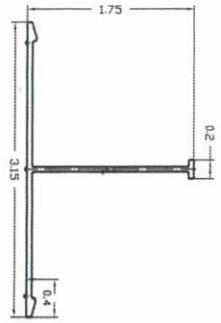

0.085-inch Top Rail "A" Insert



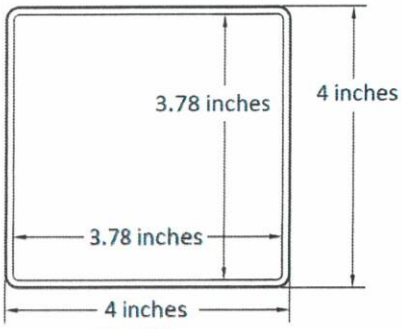

0.060-inch Top Rail "A" Insert



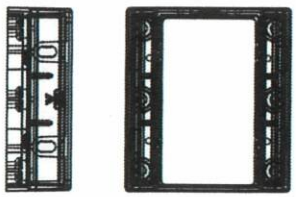

Bottom Rail



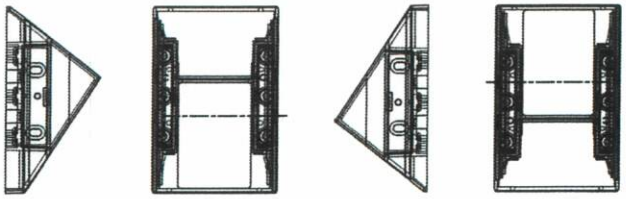

0.055-inch Bottom Rail "T" Insert




Post Sleeve

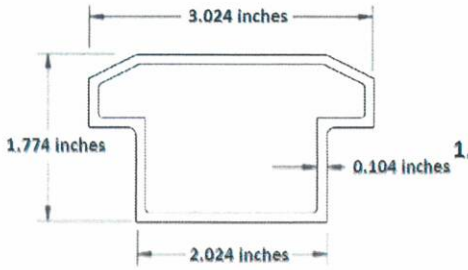


Level – Rail Bracket

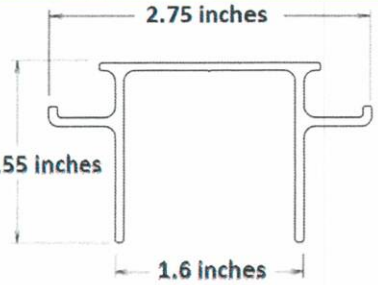


Stair – Rail Brackets

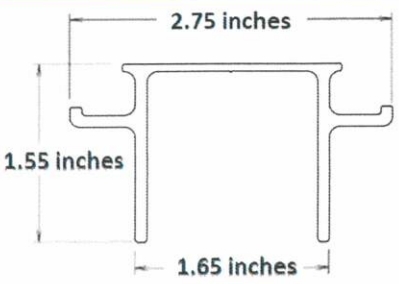
**FIGURE 2 – 200 SERIES PVC RAILING PROFILES AND BRACKETS**



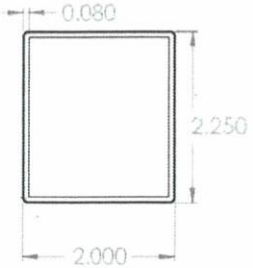

Top Rail




0.075-inch Top Rail Insert

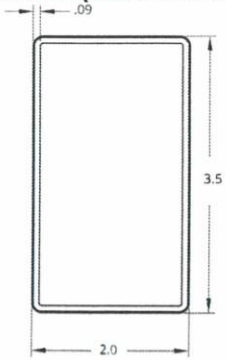



0.100-inch Top Rail Insert

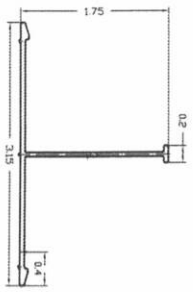



2" x 2.25" Bottom Rail (Series 300 and Warrior Rail)

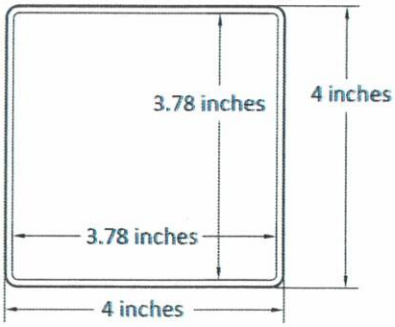
0.055-inch Bottom Rail "H" Insert



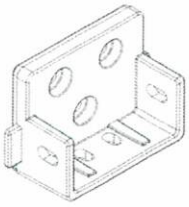

2" x 3.5" Bottom Rail (Builders Mark Rail)



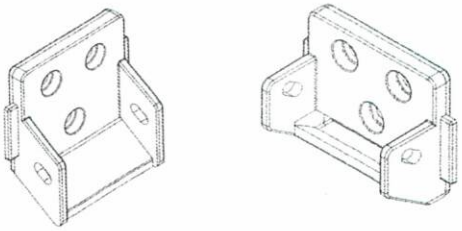

0.055-inch Bottom Rail "T" Insert




Post Sleeve

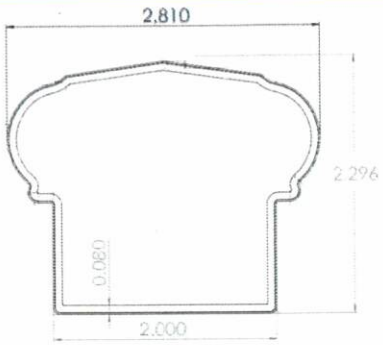


Level – Rail Bracket

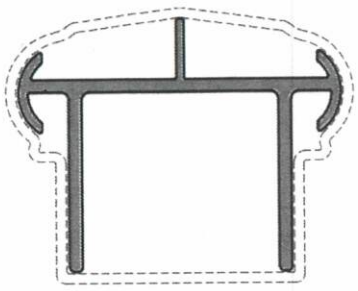


Stair – Rail Brackets

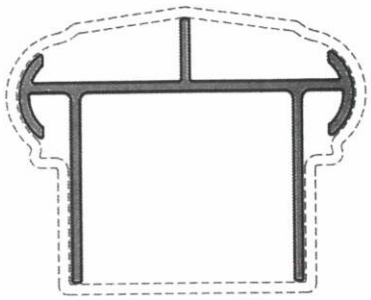
FIGURE 3 – 300 SERIES PVC RAILING PROFILES AND BRACKETS



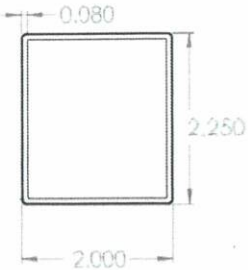

Top Rail



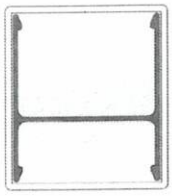
0.100-inch Top Rail Insert



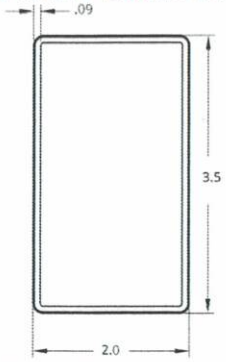
0.070-inch Top Rail Insert



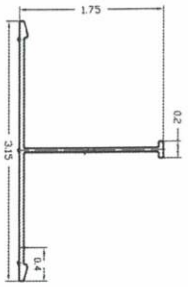

2" x 2.25" Bottom Rail



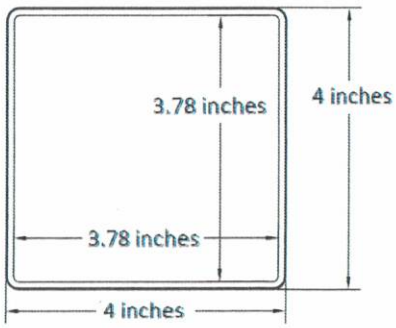
0.055-inch Bottom Rail "H" Insert



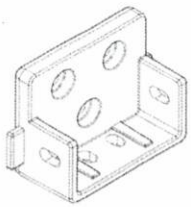

2" x 3.5" Bottom Rail



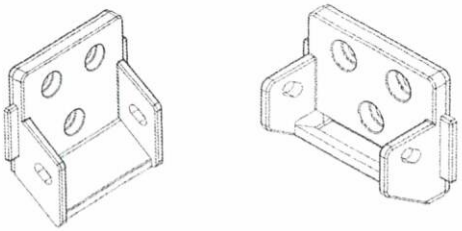

0.055-inch Bottom Rail "T" Insert




Post Sleeve

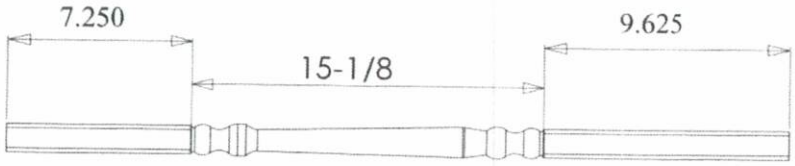


Level – Rail Bracket

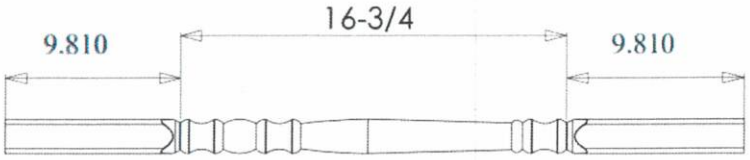


Stair – Rail Brackets

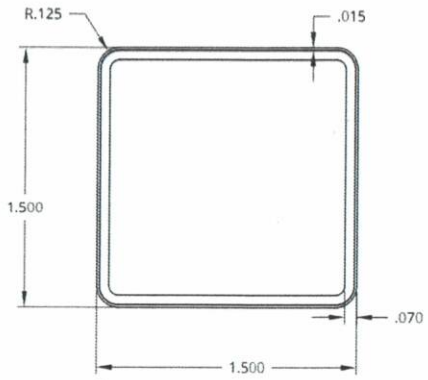
**FIGURE 4 – 600 SERIES PVC RAILING PROFILES AND BRACKETS**



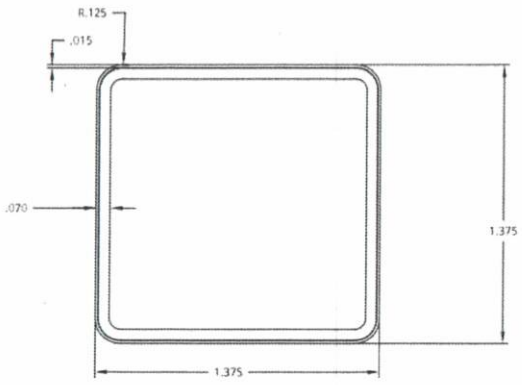

1-1/4-inch PVC Spindle
(300, 600 Series Only)



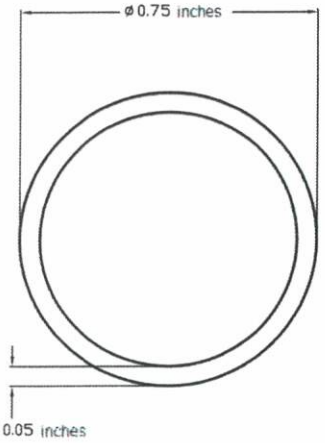

1-1/2-inch PVC Spindle
(100, 200 Series Only)




1-1/2-inch Square PVC Picket
(100, 200 Series Only)

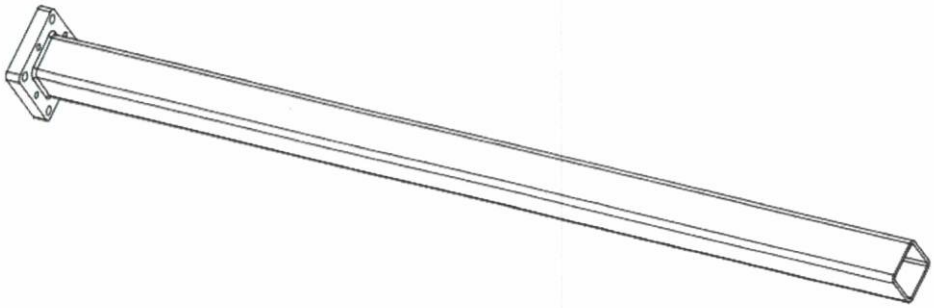



1-3/8-inch Square PVC Picket
(300, 600 Series Only)

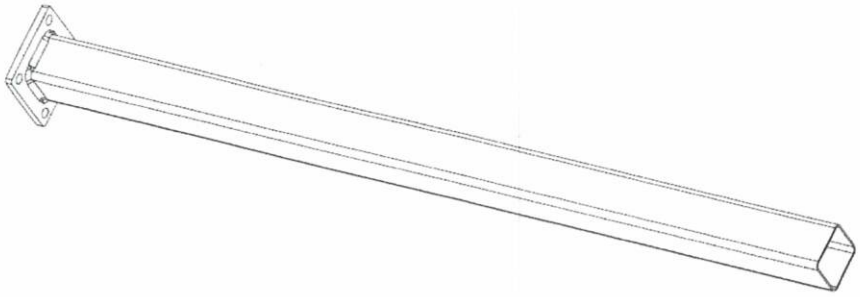



3/4-inch Diameter Aluminum Picket

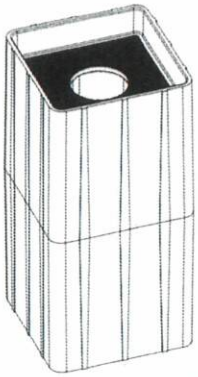
**FIGURE 5 – INFILL**



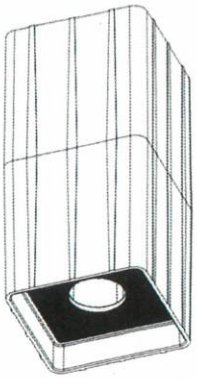
**LMT Blu Mount**



**LMT Galvanized**

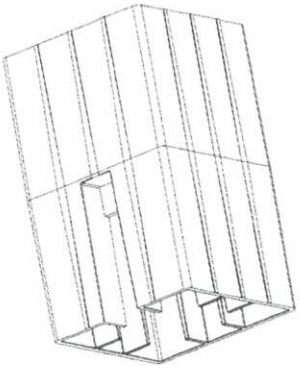


Orientation for 36"



Orientation for 42"

**Top Rail Post Guide**



**Bottom Rail Post Guide**

**FIGURE 6 – POST MOUNTS**

# Evaluation Service®

*Pei* **Evaluation Service®** is an accredited **ISO Standard 17065** Product Certifier, accredited by the IAS. This **Product Evaluation Report** represents a product that *Pei* **ES** has evaluated. This product has a Product Evaluation Service Agreement & Follow-up Inspection Service Agreement. This **Product Evaluation Report** in no way implies warranty for this product or relieves **Fiber Composites, LLC** of their liabilities for this product. This **PER** is an official document if it is within one year of the Initial or Re-Approval date.

**PER-15097**

| Initial Approval | Re-Approved |
|---|---|
| February, 2016 | February, 2021 |

*See all Pei* **ES** *Listings at: www.p-e-i.com*

## Report Owner

**Fiber Composites, LLC**
181 Random Drive
New London, NC 28127

## Product

**Fiberon® PE Decking**
**Fiberon® PVC Decking**

## Approved Manufacturing Locations

**Fiber Composites, LLC**
181 Random Drive
New London, NC 28127

**Fiber Composites, LLC**
420 W Franklin Rd
Meridian, ID 83642

## Evaluation Report Information

Fiber Composites Contact Information:
**1-800-573-8841 or info@fiberondecking.com**

## General Details

This report covers the **Fiberon® PE Decking** and **Fiberon® PVC Decking**. The plant locations listed above have an approved Q.C. Manual to manufacture the product. **Fiber Composites, LLC** has a Product Evaluation Service Agreement with *Pei* **Evaluation Service®** (*Pei* **ES**) / Follow-up Inspection Service Agreement with *Progressive Engineering Inc.* (*Pei*). The plant locations listed above shall be audited quarterly by *Pei*.

## Product Description

**Fiberon® PE Decking** is manufactured from polyethylene (PE) and wood fiber in a variety of cross-sections, colors, and styles as described in Table 1 of this PER. Cross-sections range from a solid rectangular shape to solid shapes with two to five arches on the bottom side. Fiberon PE Decking may also be manufactured with a longitudinal groove along each side of the board. This groove is milled in after the extrusion process and utilized for hidden fastener installation. Refer to Figures 1 through 15 for the approved section profiles and colors.

**Fiberon® PVC Decking** is made from co-extruded cellular Polyvinyl Chloride (PVC) manufactured from a solid cellular foam core in a variety of cross-sections, colors, and styles as described in Table 2 of this PER. Fiberon PVC Decking comes either square-edged or with a longitudinal groove along each side of the board (Grooved Edge). The extruded groove is located along both edges of the board for the hidden clip fastening system. **Fiberon® Paramount® Decking** has a three-sided co-extruded capstock with a tread surface that has an embossed pattern whereas **Fiberon® Promenade Decking** has a four-sided co-extruded capstock with a tread surface that has an embossed pattern. Refer to Figures 12 through 15 for the approved section profiles and colors.

## General Product Use

1. **Fiberon® PE Decking** and **Fiberon® PVC Decking** shall be installed in accordance with the Fiberon Decking Installation Instructions.
2. Specialized surface fasteners are required when decking is installed over steel joists, Fiberon EDGEMETAL may be used for steel joists. Phantom Hidden Fasteners or Universal Fasteners may not be used.
3. All construction, wood or steel framing, beams, joist, stringers and associated connections needed to support **Fiberon® PE Decking** and **Fiberon® PVC Decking** are outside the scope of this **PER**. All construction shall follow applicable codes and are subject to approval by the building official.
4. Approved deck board fastening methods are shown in Table 3 and Table 4 of this **PER**. Alternative fastening methods do not fall into the scope of this **PER** and shall be subject to approval by the building official.
5. Deck boards are intended for exterior use applications on structures regulated by the 2009, 2012, 2015 & 2018 IRC or Type VB construction in accordance with the 2009, 2012, 2015 & 2018 IBC. Deck boards may be used on balconies and similar projections on building of Type III, IV & V construction where fire sprinkler protection is extended into those areas in accordance with 2009, 2012, 2015 IBC 1406.3, Exception 3 or 2018 IBC 705.2.3.1, Exception 3.
6. Surface fasteners shall be installed at a 90-degree angle to the decking surface.

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## Code Compliance

| International Residential Code® | International Building Code® |
|---|---|
| **2009** - Section 317.4 | **2009** - Section 104.11 |
| **2012** - Section 507.3 | **2012** - Section 104.11 |
| **2015** - Section 507.3 | **2015** - Section 2612 |
| **2018** - Section 507.2.2 | **2018** - Section 2612 |

## Code Considerations

**2016 California Green Building Standard Code** "CALGreen" Title 24, Part 11

CALGreen Section A5.406.1.1 Reduced Maintenance. Fiberon Decking requires no finishing at installation and no finishing required for product maintenance.

**2015 ICC 700 National Green Building Standard**

Section 602.1.6 Termite-resistance materials. Fiberon Decking has been tested to AWPA Standard E1-13

Section 601.7 Prefinished Materials. Fiberon Decking requires no finishing at installation and no finishing required for product maintenance

*Decisions on compliance of Fiberon Decking to 2016 CALGreen and 2015 ICC 700 National Green Building standard are the responsibility of the building designer/professional. Fiberon Decking is just one product in the completed structure and there may be other or specific requirements that need to be considered.*

## Standard Compliance

**ASTM D1037-12**- Standard Test Methods for Evaluating Properties of Wood-Base Fiber and Particle Panel Materials.

**ASTM D6109-13**- Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastic Lumber and Related Products.

**ASTM D6662-17**- Standard Specification for Polyolefin-Based Plastic Lumber Decking Boards.

**ASTM D7032-17**- Standard Specification for Establishing Performance Ratings for Wood, Plastic Composite Deck Boards and Guardrail Systems (Guards or Rails)

**ASTM E84** - Test Methods for Surface Burning Characteristics of Building Materials [Flame Spread Index not exceeding 200]

**ASTM F1679-04** - Standard Test Method for Using a Variance Incidence Tribometer (VIT)

**ASTM G154-16** - Standard Practice for Operating Fluorescent Light Apparatus for UV Exposure of Non-Metallic Materials.

**AWPA Standard E1** - Standard Method for Laboratory Evaluation to Determine Resistance to Subterranean Termites [Equivalent (or better) performance to preservative treated or naturally durable wood for resistance to termite attack]

**AWPA Standard E10** - Standard Method for Testing Wood Preservatives by Laboratory Soil-Block Cultures [Equivalent (or better) performance to preservative treated or naturally durable wood for resistive to fungus decay]

**CSFM 12-7A-4A** - Materials and Construction Methods for Exterior Wildfire Exposure - Decking Alternate Method A

[Tested Decking Includes: Good Life FR, Sanctuary FR, Paramount® PVC and Promenade Decking]

## Table 1 - Fiberon® PE Decking Description Summary

| Deck Board[1] | Grooved Availability (Yes or No) | Approved Colors[3] | Material/Process[2] |
|---|---|---|---|
| Good Life Weekender<br>Good Life Escapes<br>Good Life™ Weekender FR<br>Good Life Escapes FR | Yes | Beach House<br>Bungalow<br>Cabana<br>Tuscan Villa<br>Cabin<br>Cottage | Coextruded with a PE/wood core and HDPE capstock on three sides (No capstock on bottom) |
| Sanctuary®<br>Sanctuary® FR | Yes | Chai<br>Espresso<br>Earl Grey<br>Latte<br>Moringa | Coextruded with a PE/wood core and HDPE capstock on three sides (No capstock on bottom) |
| Concordia™ Horizon® | Yes | Rosewood<br>Tudor Brown<br>Ipe<br>Castle Gray | Coextruded with a PE/wood core and HDPE capstock on all four sides. |
| Concordia™ Symmetry® | Yes | Burnt Umber<br>Warm Sienna<br>Cinnabar<br>Graphite | |
| Fiberon® ArmorGuard® | Yes | Nantucket Gray<br>Brazilian Walnut<br>Sandcastle | Coextruded with a PE/wood core and HDPE capstock on three sides (No capstock on bottom) |
| Veranda | Yes | Brown<br>Gray | Coextruded with a PE/wood core and HDPE capstock on three sides (No capstock on bottom) |

**Notes:**

1. Deck board cross-sections are provided in Figure 1, 3, 5, 8, 10, 12 and 14.
3. Approved colors are shown in Figure 2, 4, 6, 7, 9, 11, 13 and 15.

## Table 2 - Fiberon® PVC Decking Description Summary

| Deck Board[1] | Grooved Availability (Yes or No) | Approved Colors[3] | Material/Process[2] |
|---|---|---|---|
| Paramount® PVC | Yes | Brownstone<br>Flagstone<br>Fossil<br>Mineral<br>Sandstone | Coextruded PolyVinyl Chloride (PVC) |
| Promenade Decking | Yes | Moonlit Cove<br>Natural Reef<br>Russet Dune<br>Sandy Pier<br>Shaded Cay<br>Weathered Cliff | Coextruded PolyVinyl Chloride (PVC) |

1. Deck board cross-sections are provided in Figures 12 and 14.
2. PVC (Polyvinyl Chloride).
3. Approved colors are shown in Figure 2, 4, 6, 7, 9, 11, 13 and 15.

## Table 3 - Fiberon Span & Wind Uplift Ratings for Square Edge Deck Boards

| Deck Board[1] | Fastener System[2] | Span (in) | Stair Tread Span[3] (in) | Load Rating (psf) | Allowable Wind Uplift[5] (psf) |
|---|---|---|---|---|---|
| Good Life, Weekender, Escapes<br>Good Life Escapes FR<br>Good Life Weekender FR | Two (2) #9 x 2-1/2" SplitStop™ Titan III Composite Screws at each end and joist support. | 16 | 12 | 100 | 316 |
| Good Life, Weekender, Escapes<br>Good Life Escapes FR<br>Good Life Weekender FR | Two (2) #9 x 2-3/4" FastenMaster TrapEase II Composite Screws at each end and joist support. | 16 | 12 | 100 | 267 |
| Sanctuary®<br>Sanctuary FR | Two (2) #10 x 2-1/2" SplitStop Titan III Composite Screws at each end and joist support. | 16 | 12 | 100 | 391 |
| Concordia™ Horizon®, Symmetry® | Two (2) #10 x 2-1/2" SplitStop Titan III Composite Screws at each end and joist support. | 16 | 12 | 100 | 428 |
| Fiberon® ArmorGuard® | Two (2) #10 x 2-1/2" SplitStop Titan III Composite Screws at each end and joist support. | 16 | 12 | 100 | 376 |
| Veranda | Two (2) #10 x 2-1/2" SplitStop Titan III Composite Screws at each end and joist support. | 16 | 12 | 100 | 315 |
| Paramount® PVC Decking | Two (2) #10 x 2-3/4" Cortex® composite deck screws at each end and joist support. | 16 | 24 (reinforced)[4] | 100 | 544 |
| | Two (2) #9 x 2-3/4" FastenMaster TrapEase II Composite Screws at each end and joist support. | 16 | 12 | 100 | 277 |
| Promenade PVC Decking | Two (2) #9 x 2-3/4" FastenMaster TrapEase II Composite Screws at each end and joist support. | 16 | 24 (reinforced)[4] | 100 | 277 |
| | Two (2) #10 x 2-3/4" Cap-Tor XD Headcote 305 w/Type 17 Auger Tip composite deck screws at each end and at the joist support. | 16 | 24 (reinforced)[4] | 100 | 170 |

**Notes:**

1. Deck board cross-sections are provided in Figures 1, 3, 5, 8, 10, 12 and 14.
2. Approved fasteners are provided in Figures 17 through 20.
3. A minimum two-span condition is required when deck boards are utilized for a stair tread application.
4. Paramount & Promenade deck boards used in a stair tread application must be reinforced with a 2x4 preservative treated SYP blocking as shown in Figure 16.
5. Wind uplift values based upon the lesser of deck board flexural strength, fastener pull-through, and fastener withdrawal from SYP lumber. Fastener withdrawal from alternative lumber species shall be approved by the Building Official prior to installation.

## Table 4 - Fiberon Span & Wind Uplift Ratings for Grooved Edge Deck Boards

| Deck Board[1] | Fastener System[3,4] | Span (in) | Stair Tread Span[2] (in) | Load Rating (psf) | Wind Uplift (psf) |
|---|---|---|---|---|---|
| Good Life Grooved<br>Good Life Weekender FR, Good Life Escapes FR | Fiberon Phantom GT Hidden Fastener System / | 16 | NP | 100 | 196 |
| | Fiberon® EDGE® Clips Hidden Fastener System | 16 | NP | 100 | 244 |
| | Fiberon® EDGEX® Clips Hidden Fastener System | 16 | NP | 100 | 267 |
| Sanctuary® Grooved<br>Sanctuary® FR | Fiberon Phantom GT Hidden Fastener System | 16 | NP | 100 | 200 |
| Concordia™ Horizon® Grooved<br>Concordia™ Symmetry Grooved | Fiberon Phantom GT Hidden Fastener System | 16 | NP | 100 | 182 |
| Fiberon® ArmorGuard® Grooved | Fiberon Phantom GT Hidden Fastener System | 16 | NP | 100 | 172 |
| Paramount® PVC Grooved | Fiberon Phantom GT Hidden Fastener System | 16 | NP | 100 | 169 |
| | Fiberon® Edge® Clips Hidden Fastener System | 16 | NP | 100 | 233 |
| | Fiberon® EdgeX® Clips Hidden Fastener System | 16 | NP | 100 | 277 |
| Promenade PVC Grooved | Fiberon Phantom Universal Hidden Deck Fastener. | 16 | NP | 100 | 170 |
| | Fiberon® Edge® Clips Hidden Fastener System | 16 | NP | 100 | 233 |
| | Fiberon® EdgeX® Clips Hidden Fastener System | 16 | NP | 100 | 277 |

**Notes:**

1. Deck board cross-sections are provided in Figures 1, 3, 5, 8, 10, 12 and 14.
2. Grooved deck boards are not permitted (NP) in stair tread applications.
3. Fiberon Phantom GT Hidden Fastener System is detailed in Figure 21. A #8 x 1.6" long trim head stainless steel screw (0.165" major diameter, 0.105" minor diameter) shall be used for all Hidden Fastener System installations.
4. Fiberon® Edge® & Fiberon® EdgeX® Clip Hidden Fastener Systems are detailed in Figure 22 & 23. A #7 x 2-1/4" long coated screw (8TPI, 2.21-in overall length, 0.156 major diameter, 0.105-in minor diameter, 0.120-in. shank, 0.200-in head diameter, star drive trim head, self drilling point) shall be used for the Fiberon® Paramount® and Promenade decking hidden fastener installation.

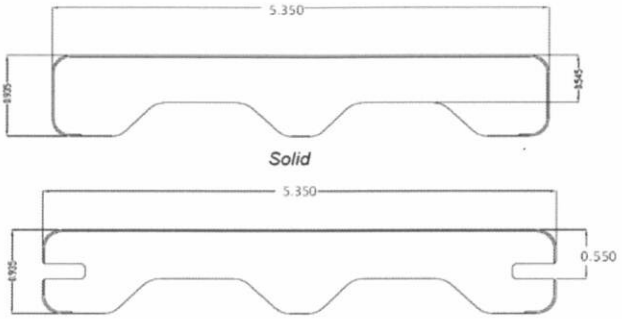



**Figure 1 - Fiberon Good Life™ Weekender & Escapes Cross-Section**


**Figure 2 - Good Life™, Weekender, & Escapes Approved Colors**

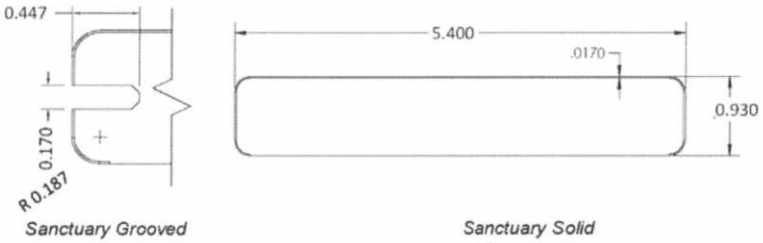



**Figure 3 - Fiberon Sanctuary® Cross-Sections**


**Figure 4 - Fiberon Sanctuary® Approved Colors**

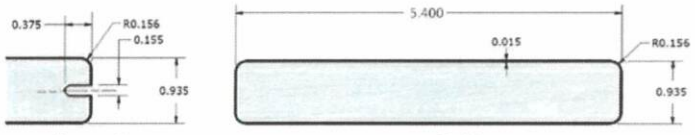



**Figure 5 - Fiberon Concordia™ Horizon, Symmetry Cross-Sections**



**Figure 6 - Fiberon Concordia™ Horizon Approved Colors**


**Figure 7 - Fiberon Concordia™ Symmetry Approved Colors**

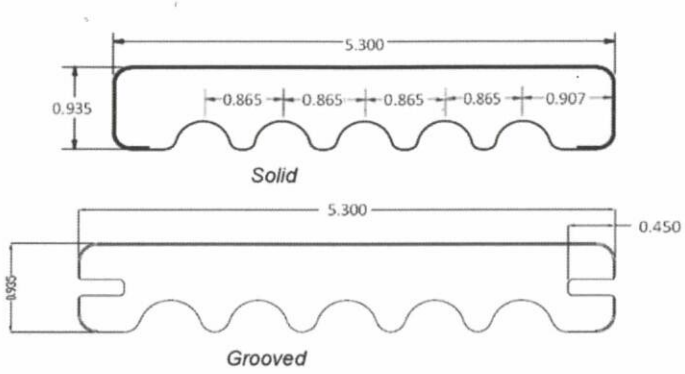



**Figure 8 - Fiberon® ArmorGuard® Cross-Section**


**Figure 9 - Fiberon® ArmorGuard® Approved Colors**

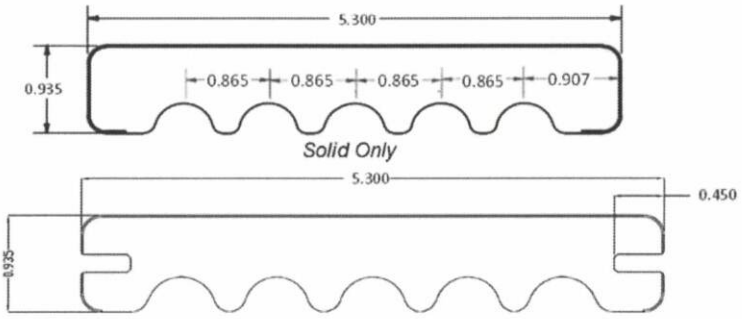



**Figure 10 - Veranda Cross-Sections**

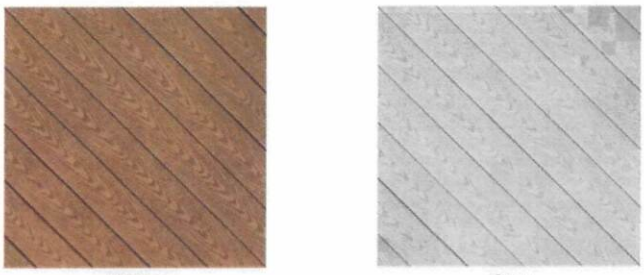



**Figure 11 - Veranda Composite Approved Colors**

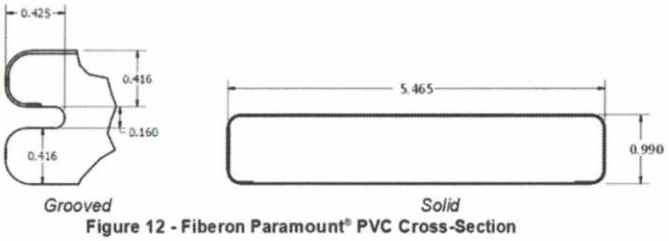



**Figure 12 - Fiberon Paramount® PVC Cross-Section**

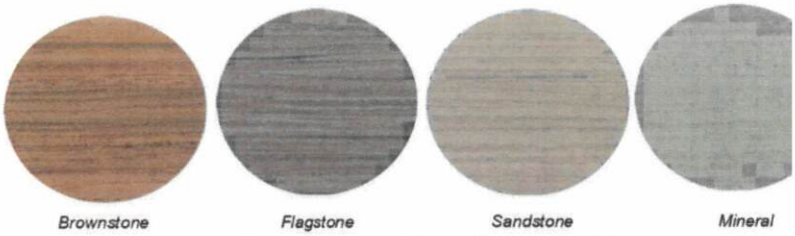



**Figure 13 - Fiberon Paramount® PVC Approved Colors**

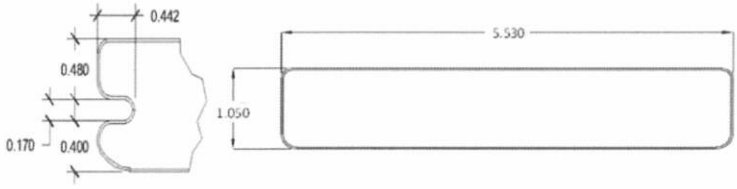



**Figure 14 - Fiberon® Promenade Cross-Section**


**Figure 15 - Promenade Decking Approved Colors**

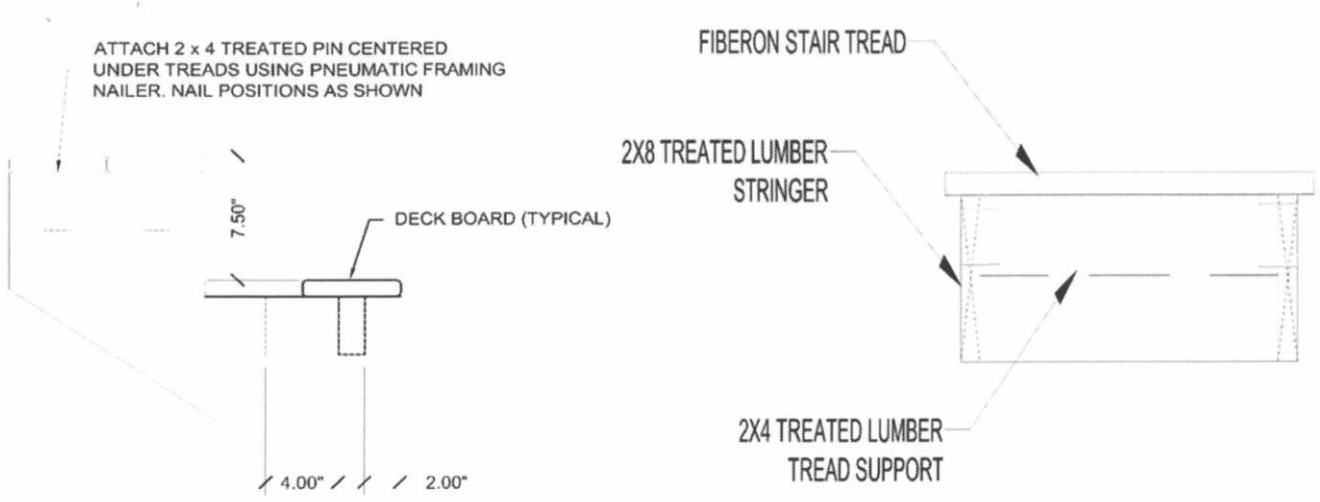


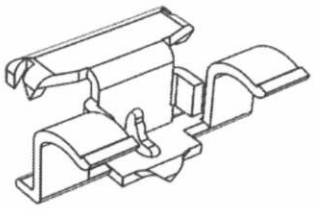

**Figure 16 - Fiberon Paramount® and Promenade PVC Stair Tread Installation**

**Figure 17 - SplitStop™ Titan III Composite Screws (Typical)**

**Figure 18 - GRK Fasteners Kameleon Composite Deck Screws (Typical)**

**Figure 19 - Cap-Tor XD Screws**

**Figure 20 - Starborn Pro Plug System for Hidden Face-Fastening (Fiberon Horizon, Symmetry, Advantage, Good Life, Paramount)**



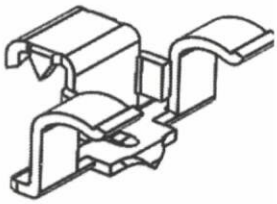


**Figure 21 - Phantom GT Hidden Fastener & Phantom EC End Clip**

**Figure 22 - Fiberon® EdgeClip® Hidden Fastener System**

**Figure 23 - Fiberon® EdgeX® Hidden Fastener System**

## Product Labeling

Each deck board shipment, that is covered by this **Product Evaluation Report**, must have a label attached with at least the following information:

1. Fiber Composites, LLC Name and Address
2. Product Name
3. Plant Identifier & Date Code
4. This **PER** Number and *Pei* **Evaluation Service®** Logo
5. Allowable Load and Maximum Allowable Span (Indicate Compliance with ASTM D7032)
6. WUI Rating (SFM 12-7A-4A) and SFM Label

## Acceptable Evaluation Marks


## Product Documentation

A Product Evaluation Service Agreement between *Pei* **Evaluation Service®** and Fiber Composites, LLC

A Follow-up Inspection Service Agreement between *Progressive Engineering Inc.* and Fiber Composites, LLC

Fiber Composites, LLC Quality Control Manual - Dated: August, 31, 2020

A Test Report No. E6747.01-119-19 - ICC-ES AC174 Section 4.0 - Sanctuary, ProTect Advantage, Veranda ArmorGuard / ProTect, and Good Life Deck Boards - Dated: July 30, 2015.

A Test Report No. D7921.01-119-16 - ICC-ES AC174 - Veranda Composite Decking, Veranda ArmorGuard / ProTect, Good Life, Horizon, ProTect Advantage, and Sanctuary Deck Boards Manufactured in Meridian, Idaho - Dated: March 3, 2015.

A Test Report No. D6678.01-119-19 - ICC-ES AC174 - Veranda Composite Decking UV Resistance & Flexural - Dated: October 8, 2014.

A Test Report No. D5209.01-119-19 - ICC-ES AC174 - Fiberon Good Life Deck Boards - Dated: October 8, 2014.

A Test Report No. D3969.01-119-19 - ICC-ES AC174 - Paramount Deck Boards - Dated: July 17, 2014.

A Test Report No. D5209.03-121-24 - ASTM E84 Surface Burning Characteristics for Fiberon Good Life Decking (Uncapped Surface) - Dated: April 2, 2014.

A Test Report No. D3126.01-119-19 - ICC-ES AC174 Flexural & Stair Tread Testing for ProTect Advantage - Dated: April 2, 2014.

A Test Report No. B1352.02-122-24 - ASTM E84 Surface Burning Characteristics for Fiberon ArmorGuard - Dated: November 7, 2011.

A Test Report No. A7297.01-119-19 - ASTM D7032-07 Section 4.6 Ultraviolet (UV) Resistance Test for Fiberon Horizon and Veranda ArmorGuard Deck Boards - Dated: June 1, 2011.

A Test Report No. A5722.01-119-19 - ICC-ES AC174 for ArmorGuard Deck Boards - Dated: May 3, 2011.

A Test Report No. 97576.01-119-19 - ASTM E330 Uplift Resistance for Fiberon Grooved Deck Boards with Phantom Hidden Fastener System - Dated: March 2, 2010.

A Test Report No. 92640.01-119-19 - ICC-ES AC174 for HDPE-Capped HDPE Horizon Deck Boards - Dated: February 18, 2010.

A Test Report No. F5116.01-119-19 - ICC-ES AC174 for Horizon Symmetry Deck Boards - Dated: June 16, 2016.

A Test Report No. 15053r2 - CSFM 12-7A-4A Nominal 1"x6" ProTect Advantage FR Composite Deck 3/16" Edge-to-Edge Spacing - Dated: September 2, 2015

A Test Report No. 11127.1r1 - CSFM 12-7A-4A Fiber Composites Veranda/ArmorGuard (ArmorGuard/ProTect) Deck Plank Square Edge 1/8" Edge Gap - Dated: January 18, 2013.

A Test Report No. 12059r1 - CSFM 12-7A-4A Underside Deck Testing of Fiber Composites Veranda/ArmorGuard (ArmorGuard/ProTect) Deck Plank with 1/8" Spacing - Dated: January 22, 2013.

A Test Report No. 14006a - CSFM 12-7A-4A Deck Testing of 15/16" x 5-1/2" Fiberon Paramount (PVC) 3/16" Edge-to-Edge Spacing - Dated: March 17, 2014

A *Pei* Test Report No. 2019-6063 for ASTM D7032 Establishing Performance Ratings for Plastic Lumber Deck Boards and Stair Treads for Fiberon ArmorGuard Decking - Dated 4/5/19

A *Pei* Test Report No. 2019-6070 - Evaluation of Fiberon Good Life LITE Decking with Fiberon Cortex Hidden Fastening System - Dated 4/

A *Pei* Test Report No. 2019-6079 - Deck Board Performance Testing on Good Life LITE Decking - Dated 5/15/19

A *Pei* Test Report No. 2017-6226- ASTM D7032 Stair Tread Performance Testing on Fiberon Decking Sanctuary Earl Gray and Horizon IPE - Dated July 22, 2019 - Revised on August 19, 2019.

A *Pei* Test Report No. 2017-6256 for ASTM D7032 Baseline for Wood-Plastic Composite Decking - Dated 3/15/18

A *Pei* Test Report No. 2018-6278 for ASTM D7032 Deck Board Performance Testing on New PE Formulation of Fiberon Decking - Dated 1/15/18

A *Pei* Test Report No. 2019-6252 for ASTM D7032 Deck Board Performance Testing on Fiberon® Promenade Decking - Dated 9/14/20

**Product Documentation continued**

A Test Report No. H2095.01-119-19 for Uplift Resistance of Wood-Plastic Composite Grooved Deck Boards with Cortex Hidden Fastening System - Dated 7/21/17

A Starborn PDF document for Pro Plug® System for Fiberon Inventory Management Program titled GEN_PPS-PVC-Fiberon_p.20170217-r.20180110.pdf - Not Dated

A Test Report No. 19052ar1 - CSFM 12-7A-4A Fire Testing of Decking Material Sanctuary FR/Advantage FR (Chestnut) 3/16" Edge-to-Edge Spacing - Dated 7/30/19

A Test Report No. 19052br1 - CSFM 12-7A-4A Fire Testing of Decking Material Sanctuary FR/Advantage FR (Gray Birch) 3/16" Edge-to-Edge Spacing - Dated 7/30/19

A Test Report No. 19052d - CSFM 12-7A-4A Fire Testing of Decking Material with Armor Guard FR (Gray) 3/16" Edge-to-Edge Spacing - Dated 7/25/19

A Test Report No. WDL-2019-16a - Formosan Subterranean Termite Resistance Study of Two Fiberon Decking Boards and Untreated Southern Pine Control - Dated: October 2, 2019.

A Test Report No. WDL-2019-16b - Decay Resistance study of Two Fiberon Decking Boards, ACQ Pressure Treated Pine, and Untreated Southern Pine Sweetgum Controls - Dated: February 19, 2019.

A Test Report No. 01.24101.02.056b(1) - Standard Test Method for Surface Burning Charasteristics Performed in Accordance with ASTM E84-19 - Dated: September 4, 2019, Revised August 11, 2020.