

**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, 2018

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#### **Report Owner**

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

## **Product**

Fiberon® Deck Boards
Fiberon® Grooved Deck Boards

### **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 Deck Boards** and **Grooved Deck Boards**. 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 Deck Boards** are manufactured 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. Refer to Figure 1 through 15 for approved section profiles and colors. Fiberon Deck Boards are comprised of polyethylene (PE) and wood fiber in most cases [Exception: Fiberon Paramount® is co-extruded cellular Polyvinyl Chloride (PVC)].

Fiberon Grooved Deck Boards are manufactured in a variety of cross-sections, colors, and styles as described in Table 1 of this **PER** Cross-sections are similar to that of the standard deck boards with the exception of a longitudinal groove along each side of the board. This groove is milled after the extrusion process and utilized for a hidden fastener installation system (Exception: Fiberon Paramount extrudes the groove directly into the profile). Refer to Figures 1 through 15 for approved section profiles and colors. Fiberon Grooved Deck Boards are comprised of polyethylene (PE) and wood fiber [Exception: Fiberon Paramount® is co-extruded cellular Polyvinyl Chloride (PVC)].

# **General Product Use**

- 1. Fiberon Deck Boards and Fiberon Grooved Deck Boards shall be installed in accordance with the Fiberon Decking Installation Instructions.
- 2. Specialized surface fasteners are required when decking is installed over steel joists. Phantom Hidden Fasteners may not be used.
- 3. All construction, wood or steel framing, beams, joist, stringers and associated connections needed to support **Fiberon Deck Boards** and **Grooved Deck Boards** 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 2 and Table 3 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 2012 & 2015 IRC or Type VB construction in accordance with the 2012 & 2015 IBC. In cases where sprinkler protection is extended into the decking area, deck boards may also be installed on buildings of Type III and IV construction in accordance with 2012 & 2015 IBC Section 1406.3.
- 6. Surface fasteners shall be installed at a 90-degree angle to the decking surface.

# **Code Compliance**

2012 & 2015 International Residential Code®	2012 & 2015 International Building Code®		
Section R507.3	Section 2612		

### **Standard Compliance**

**ASTM D7032**- 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]

**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: ProTect®, ProTect Advantage FR, Veranda® ArmorGuard®, and Paramount® PVC]

Table 1 - Fiberon Deck Boards & Grooved Deck Boards Description Summary

Deck Board <sup>1</sup>	Grooved Availability (Yes or No)	Approved Colors <sup>3</sup>	Material/Process <sup>2</sup>
Good Life™		Cabin	Coextruded with a PE/wood core and
	Yes	Cottage	HDPE capstock on three sides (No
		Villa	capstock on bottom)
		Espresso	Coextruded with a PE/wood core and
Sanctuary <sup>®</sup>	Yes	Latte	HDPE capstock on three sides (No
		Earl Grey	capstock on bottom)
ProTect <sup>®</sup>		Gray Birch	Coextruded with a PE/wood core and
ProTect Advantage®	Yes	Chestnut	HDPE capstock on three sides (No
ProTect Advantage FR		Western Cedar	capstock on bottom)
		Greystone	
		lpe	
Horizon <sup>®</sup>	Yes	Rosewood	
		Tudor Brown	Coextruded with an PE/wood core and
		Castle Gray	HDPE capstock on all four sides.
		Burnt Umber	TIDI L capstock off all four sides.
Horizon Symmetry®	Yes	Warm Sienna	
Horizon Symmetry		Cinnabar	
		Graphite	
Veranda <sup>®</sup> ArmorGuard <sup>®</sup>	Yes	Nantucket Gray	Coextruded with a PE/wood core and HDPE capstock on three sides (No
veranda <sup>s</sup> ArmorGuard <sup>s</sup>		Brazilian Walnut	capstock on bottom)
V	No	Brown	Coextruded with a PE/wood core and
Veranda Composite		Gray	HDPE capstock on three sides (No capstock on bottom)
Paramount® PVC	Yes	Brownstone	
		Flagstone	
		Fossil	Coextruded PolyVinyl Chloride (PVC)
		Mineral	
		Sandstone	

#### Notes:

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

Table 2 - Fiberon Deck Boards Span & Wind Uplift Ratings

Deck Board <sup>1</sup>	Fastener System <sup>2</sup>	Span (in)	Stair Tread Span <sup>3</sup> (in)	Load Rating (psf)	Allowable Wind Uplift <sup>5</sup> (psf)
Good Life™	Two (2) #9 x 2-1/2" SplitStop™ Titan III Composite Screws at each end and joist support.	16	7	100	300
ProTect <sup>®</sup>	Two (2) #10 x 2-1/2" SplitStop Titan III Composite Screws at each end and joist support.	16	8	100	375
Sanctuary <sup>®</sup>	Two (2) #10 x 2-1/2" SplitStop Titan III Composite Screws at each end and joist support.	16	8	100	375
ProTect Advantage <sup>®</sup> ProTect Advantage FR	Two (2) #10 x 2-1/2" SplitStop Titan III Composite Screws at each end and joist support.	16	8	100	375
Horizon <sup>®</sup> Horizon Symmetry <sup>®</sup>	Two (2) #10 x 2-1/2" SplitStop Titan III Composite Screws at each end and joist support.	16	9	100	428
Veranda <sup>®</sup> ArmorGuard <sup>®</sup>	Two (2) #10 x 2-1/2" SplitStop Titan III Composite Screws at each end and joist support.	16	8	100	375
Veranda Composite	Two (2) #10 x 2-1/2" SplitStop Titan III Composite Screws at each end and joist support.	16	8	100	300
Paramount® PVC	Two (2) #10 x 2-3/4" Cortex® composite deck screws at each end and joist support.	16	24 (reinforced) <sup>4</sup>	100	544

#### Notes:

- 1. Deck board cross-sections are provided in Figures 1, 3, 5, 7, 10, 12, & 14.
- 2. Approved fasteners are provided in Figures 17 and 18.
- 3. A minimum two-span condition is required when deck boards are utilized for a stair tread application.
- 4. Paramount deck boards used in a stair tread application must be reinforced with a 2x6 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 3 - Fiberon Grooved Deck Boards Span & Wind Uplift Ratings

Deck Board <sup>1</sup>	Fastener System <sup>3</sup>	Span (in)	Stair Tread Span <sup>2</sup> (in)	Load Rating (psf)	Wind Uplift (psf)
Good Life™ Grooved	Fiberon Phantom GT Hidden Fastener System	16	NP	100	200
ProTect® Grooved	Fiberon Phantom GT Hidden Fastener System	16	NP	100	172
Sanctuary® Grooved	Fiberon Phantom GT Hidden Fastener System	16	NP	100	172
ProTect Advantage® Grooved ProTect Advantage FR Grooved	Fiberon Phantom GT Hidden Fastener System	16	NP	100	172
Horizon® Grooved Horizon Symmetry® Grooved	Fiberon Phantom GT Hidden Fastener System	16	NP	100	162
Veranda® 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

#### Notes:

- 1. Grooved deck board cross-sections are provided in Figures 1, 3, 5, 7, 10, 12, & 14.
- 2. Grooved deck boards are not permitted (NP) in stair tread applications.
- 3. Fiberon Phantom GT Hidden Fastener System is detailed in Figure 19. 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.

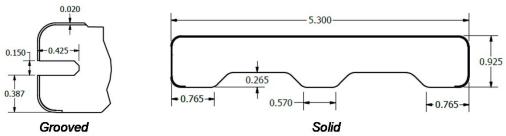
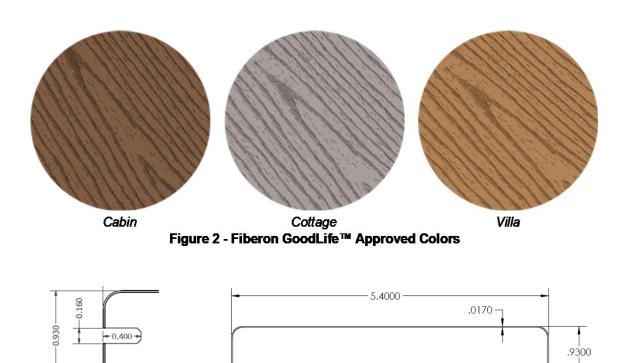


Figure 1 - Fiberon Good Life™ Cross-Section

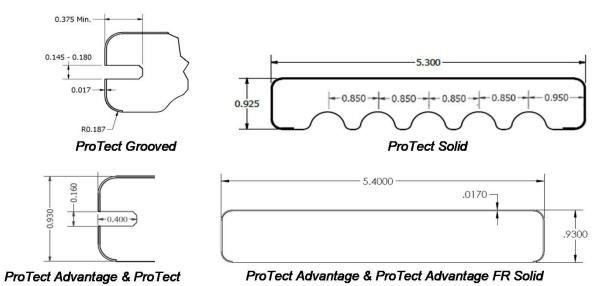


Sanctuary Solid
Figure 3 - Fiberon Sanctuary® Cross-Sections

Sanctuary Grooved



Figure 4 - Fiberon Sanctuary® Approved Colors



Advantage FR Grooved
Figure 5 - Fiberon ProTect®, ProTect Advantage®, & ProTect Advantage FR Cross-Sections



Figure 6 - Fiberon ProTect® & ProTect Advantage® Approved Colors

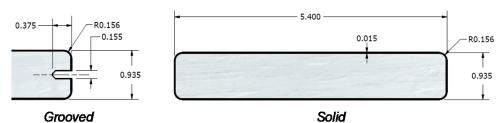


Figure 7 - Fiberon Horizon® & Horizon Symmetry® Cross-Sections



wn Castle Gray
Figure 8 - Fiberon Horizon® Approved Colors



Graphite

Figure 9 - Fiberon Horizon Symmetry® Approved Colors

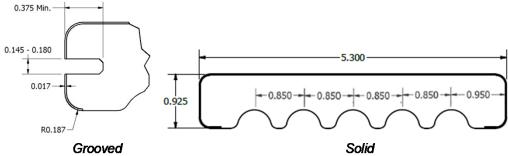


Figure 10 - Veranda® ArmorGuard® Cross-Section



Nantucket Gray Brazilian Walnut Figure 11 - Veranda® ArmorGuard® Approved Colors

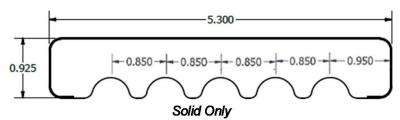


Figure 12 - Veranda Composite Cross-Section



Figure 13 - Veranda Composite Approved Colors

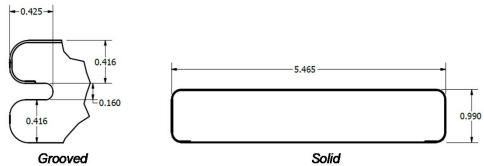


Figure 14 - Fiberon Paramount® PVC Cross-Section



Figure 15 - Fiberon Paramount® PVC Approved Colors

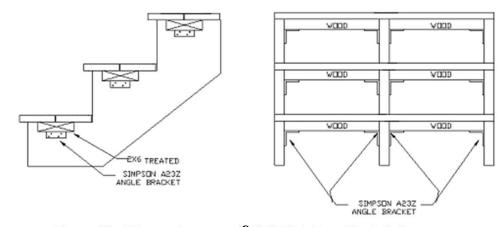


Figure 16 - Fiberon Paramount® PVC Stair Tread Installation



Figure 17 - SplitStop Titan III Composite Screws (Typical)



Figure 18 - Cortex Screws for Hidden Face-Fastening (Fiberon Paramount® PVC Only)



Figure 19 - Phantom GT Hidden Fastener & Phantom EC End Clip

### **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**<sup>®</sup> 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: May 25, 2017

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. 2014 ATI-SB3 - AWPA E10-12 Standard Method of Testing Wood Preservatives by Laboratory Soil-Block Cultures - Dated: September 22, 2014.

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

A Test Report No. 2014 ATI-T3 - AWPA Standard E1-13 - Standard Method for Laboratory Evaluation to Determine Resistance to Subterranean Termites - Dated: June 23, 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. 2013 ATI-T4 - AWPA Standard E1-09 - Standard Method for Laboratory Evaluation to Determine Resistance to Subterranean Termites - Dated: December 11, 2013.

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