

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 **Fiberon 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.

Initial Approval
February, 2016

Re-Approved
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 **Fiber Composites, LLC**
181 Random Drive 420 W Franklin Rd
New London, NC 28127 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.

Code Compliance

<u>International Residential Code®</u>	<u>International Building Code®</u>
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 Good Life Escapes Good Life ^T Weekender FR Good Life Escapes FR	Yes	Beach House	Coextruded with a PE/wood core and HDPE capstock on three sides (No capstock on bottom)
		Bungalow	
		Cabana	
		Tuscan Villa	
		Cabin	
		Cottage	
Sanctuary® Sanctuary® FR	Yes	Chai	Coextruded with a PE/wood core and HDPE capstock on three sides (No capstock on bottom)
		Espresso	
		Earl Grey	
		Latte	
		Moringa	
Concordia™ Horizon®	Yes	Rosewood	Coextruded with a PE/wood core and HDPE capstock on all four sides.
		Tudor Brown	
		Ipe	
		Castle Gray	
Concordia™ Symmetry®	Yes	Burnt Umber	Coextruded with a PE/wood core and HDPE capstock on all four sides.
		Warm Sienna	
		Cinnabar	
		Graphite	
Fiberon® ArmorGuard®	Yes	Nantucket Gray	Coextruded with a PE/wood core and HDPE capstock on three sides (No capstock on bottom)
		Brazilian Walnut	
		Sandcastle	
Veranda	Yes	Brown	Coextruded with a PE/wood core and HDPE capstock on three sides (No capstock on bottom)
		Gray	

Notes:

- Deck board cross-sections are provided in Figure 1, 3, 5, 8, 10, 12 and 14.
- 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	Coextruded PolyVinyl Chloride (PVC)
		Flagstone	
		Fossil	
		Mineral	
		Sandstone	
Promenade Decking	Yes	Moonlit Cove	Coextruded PolyVinyl Chloride (PVC)
		Natural Reef	
		Russet Dune	
		Sandy Pier	
		Shaded Cay	
		Weathered Cliff	

- Deck board cross-sections are provided in Figures 12 and 14.
- PVC (Polyvinyl Chloride).
- 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 Good Life Escapes FR 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 Good Life Escapes FR 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® 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:

- Deck board cross-sections are provided in Figures 1, 3, 5, 8, 10, 12 and 14.
- Approved fasteners are provided in Figures 17 through 20.
- A minimum two-span condition is required when deck boards are utilized for a stair tread application.
- 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.
- 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 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 Sanctuary® FR	Fiberon Phantom GT Hidden Fastener System	16	NP	100	200
Concordia™ Horizon® Grooved 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:

- Deck board cross-sections are provided in Figures 1, 3, 5, 8, 10, 12 and 14.
- Grooved deck boards are not permitted (NP) in stair tread applications.
- 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.
- 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.

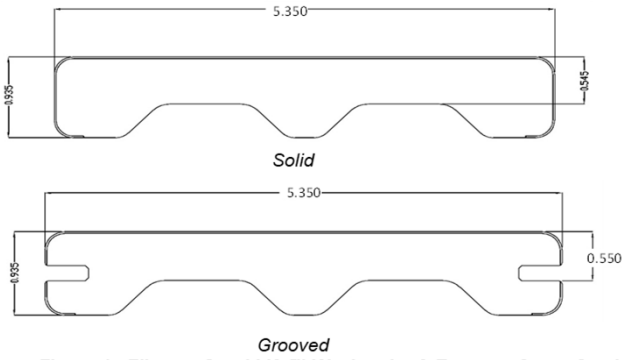


Figure 1 - Fiberon Good Life™ Weekender & Escapes Cross-Section



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

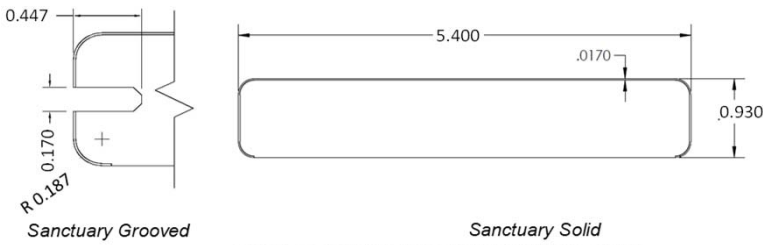


Figure 3 - Fiberon Sanctuary® Cross-Sections



Figure 4 - Fiberon Sanctuary® Approved Colors

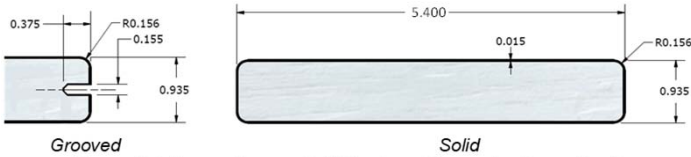


Figure 5 - Fiberon Concordia™ Horizon, Symmetry Cross-Sections



Figure 6 - Fiberon Concordia™ Horizon Approved Colors



Figure 7 - Fiberon Concordia™ Symmetry Approved Colors

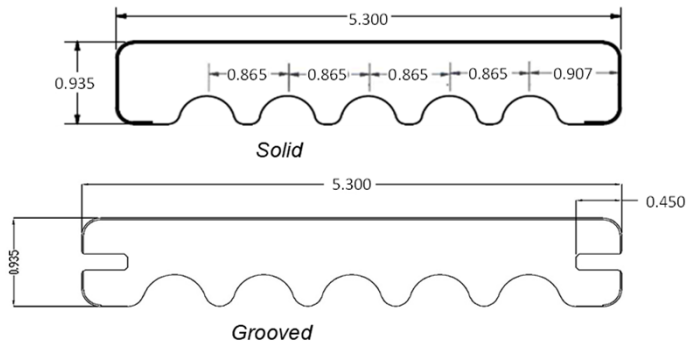


Figure 8 - Fiberon® ArmorGuard® Cross-Section



Nantucket Gray Brazilian Walnut Sandcastle
Figure 9 - Fiberon® ArmorGuard® Approved Colors

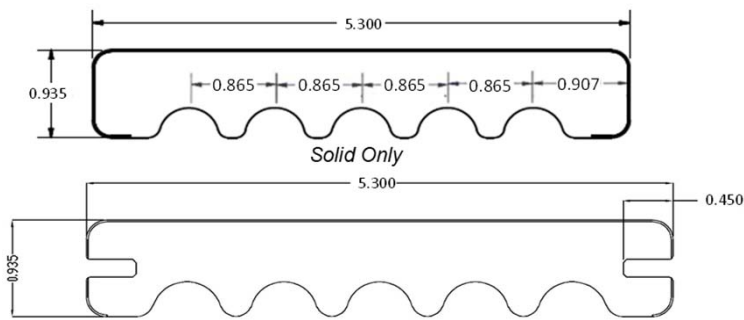


Figure 10 - Veranda Cross-Sections



Brown Gray
Figure 11 - Veranda Composite Approved Colors

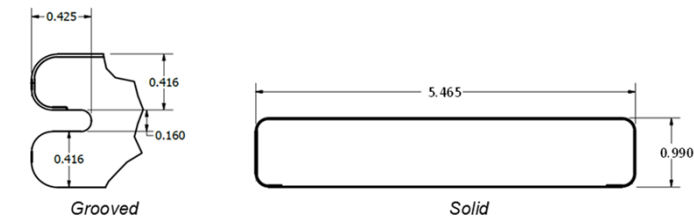


Figure 12 - Fiberon Paramount® PVC Cross-Section



Brownstone Flagstone Sandstone Mineral
Figure 13 - Fiberon Paramount® PVC Approved Colors

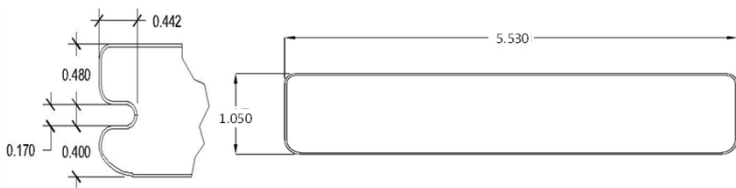


Figure 14 - Fiberon® Promenade Cross-Section



Natural Reef Russet Dune Sandy Pier
Shaded Cay Weathered Cliff Moonlit Cove
Figure 15 - Promenade Decking Approved Colors

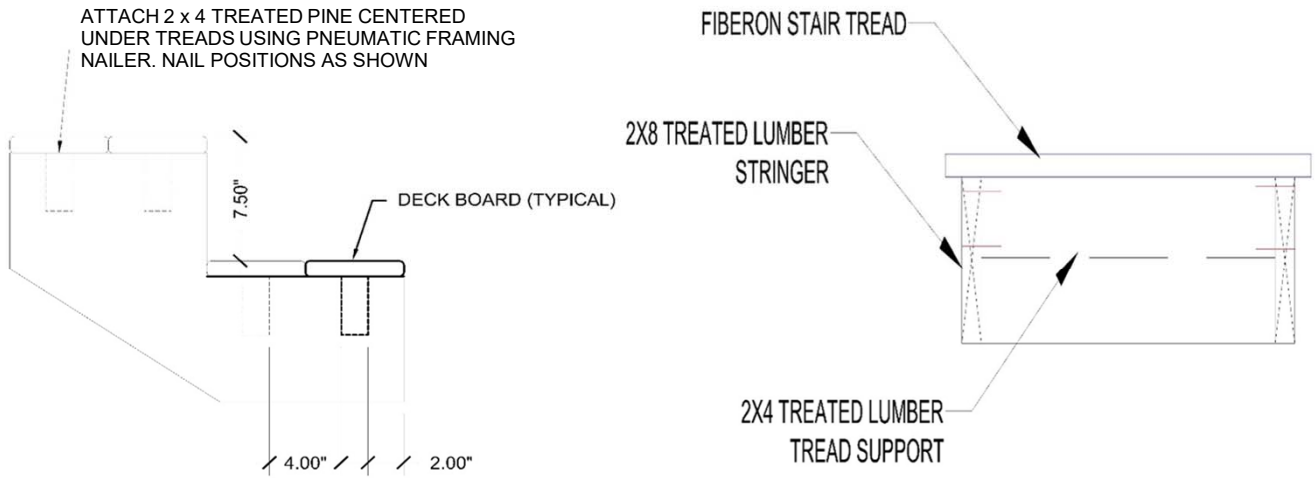


Figure 16 - Fiberon Paramount® and Promenade PVC Stair Tread Installation



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)

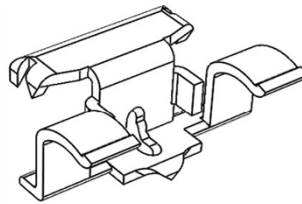


Figure 21 - Phantom GT Hidden Fastener & Phantom EC End Clip

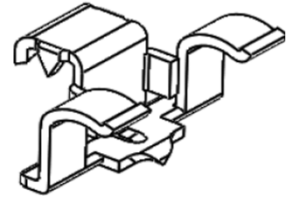


Figure 22 - Fiberon® EdgeClip® Hidden Fastener System



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 4/9/19

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 Characteristics Performed in Accordance with ASTM E84-19 - Dated: September 4, 2019, Revised August 11, 2020.