

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.

Initial Approval
March, 2018

Re-Approved

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

Report Owner

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

Approved Manufacturing Locations

Fiber Composites, LLC	Fiber Composites, LLC
181 Random Drive	420 W Franklin Rd
New London, NC 28127	Meridian, ID 83642

Product

Fiberon Horizon™ Cladding
Fiberon Symmetry™ Cladding
Fiberon Trim Board

Evaluation Report Information

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

General Details

Fiberon Horizon™ Cladding, Fiberon Symmetry™ Cladding, and Fiberon Trim Board have been tested and evaluated in accordance with the requirements of the building codes and standards shown under the Building Code and Standard Compliance section of this **PER**. **Fiber Composites, LLC** has a Product Evaluation Agreement with **Pei Evaluation Service® (Pei ES)** and a Follow-up Inspection Service Agreement with **Progressive Engineering Inc. (Pei)**. All approved manufacturing locations have an approved Quality Control Manual and are audited quarterly by **Pei**.

Product Description

Fiberon Horizon™ and Symmetry™ Cladding are fiber composite **Exterior Decorative Facade** products manufactured in a 5.40-in width by 0.935-in thickness and must be installed over an approved weather resistive barrier system. The product is available in lengths of 12-ft, 16-ft, and 20-ft. Approved colors are described in Table 1 of this **PER**, and is manufactured with a polyethylene (PE) blend and wood fiber core with a high density polyethylene (HDPE) cap stock.

Fiberon Trim Board is a fiber composite non-structural fascia product manufactured 7.3" to 11.3" in width by 0.782" in thickness and is for trim and finish uses only. Trim boards are available in a length of 12-ft. Approved colors are described in Table 1 of this **PER**, and all trim boards are manufactured with a polyethylene (PE) blend and wood fiber core with a high density polyethylene (HDPE) cap stock.

General Product Use & Limitations

- Fiberon Horizon™ and Symmetry™ Cladding** shall be installed in accordance with the Fiberon Cladding Installation Instructions. A copy of the manufacturer's Installation Instructions shall be made easily available to the installer.
- The product must be installed over an approved water-resistive barrier that complies with Section 1403.
- The product can be installed horizontally or vertically with a maximum gap of 3/16" between pieces and is attached by face screws. Approved fasteners are #9 x 2-1/2-in long composite deck screws with two (2) screws located at 16" o.c. See Figures 5 & 6 of this **PER** for fastening details.
- Wood wall framing spaced at 16" o.c. is the only framing considered for attachment in this evaluation report.
- A minimum of 7/16" OSB Rated Sheathing to be used, fastened with 8d nails. Nail spacing for the horizontal application is 6" o.c. along the edges and 12" o.c. along the field. For the vertical application, 6" o.c. along the edges and along the field.
- Furring strips are used between the sheathing and cladding. See Figures 5 & 6 of this **PER** for fastening details.
- This product is not meant to add to the structural performance of the building.
- This product has not been evaluated for salt spray resistance.
- These products are not ever to be used as structural or framing members.
- Suitability of the exterior wall envelope is subject to the approval of the building official and is outside the scope of this report.
- All flashing shall meet Section 1405.4.
- For use only where combustible materials are permitted by the building code.

Code Compliance

2012 & 2015 International Residential Code®	2012 & 2015 International Building Code®
Section R104.11 Section R703	Section 1403.2, Section 104.11 Section 1404.1, Section 1405.17

Standard Compliance

ASTM E84 - Test Methods for Surface Burning Characteristics of Building Materials

Flame Spread Index of 100 and a Smoke Development Index of 400

NFPA 268 - Meets Fire Performance Evaluation in Accordance with Acceptance Criteria stated in NFPA 268

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 resistance to fungus decay

Table 1 - Fiberon Cladding Boards Description Summary

Approved Products	Approved Colors	Material/Process
Fiberon Horizon™ Cladding & Fiberon Trim Boards	Ipe	Coextruded with a PE Blend of LDPE and HDPE / wood core and HDPE capstock on all four sides.
	Rosewood	
	Tudor Brown	
	Castle Gray	
Fiberon Symmetry™ Cladding & Fiberon Trim Boards	Burnt Umber	
	Warm Sienna	
	Cinnabar	
	Graphite	

Table 2 - Wind Components & Cladding Allowable Design Pressure^{1,2}

Fastener Description	Cladding Orientation	Wall Framing	Furring Strip Spacing	Allowable Design Pressure ³ (psf)
#9 x 2-1/2-in long Composite Deck Screw	Horizontal	16" o.c.	16" o.c.	(+/-) 176
	Vertical	16" o.c.	16" o.c.	(+/-) 141

Notes:

1. Framing of SPF with a minimum Specific Gravity of .42
2. Minimum fastener head diameter of .26" to be used
3. Allowable design pressure is based on tested values using a safety factor of 2.5
4. Sheathing - A minimum of 7/16" OSB rated sheathing.

Table 3 - Allowable Design Pressure in Accordance with TAS 202 & 203^{1,2}

Fastener Description	Material Orientation	Wood Framing	Allowable Design Pressure ³ (psf)
#9 x 2-1/2-in long Composite Deck Screw	Cladding Horizontal	16" o.c.	(+/-) 120
#9 x 2-1/2-in long Composite Deck Screw	Fascia Horizontal	16" o.c.	(+/-) 115

Notes:

1. Framing of SPF with a minimum Specific Gravity of .42
2. Minimum fastener head diameter of .26" to be used
3. Allowable design pressure is based on tested values using a safety factor of 1.5

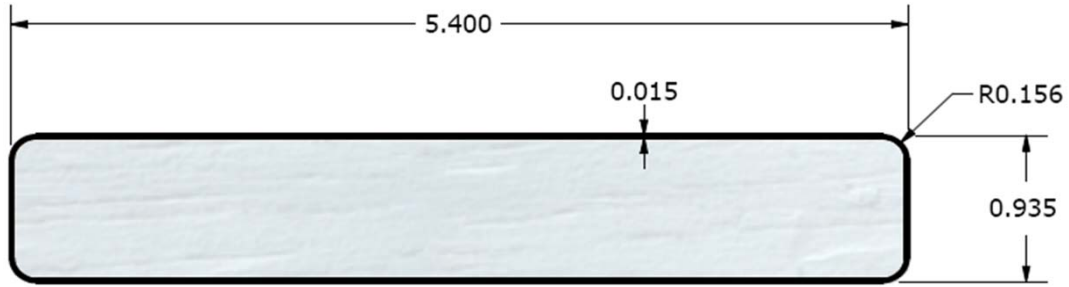


Figure 1 - Fiberon Horizon™ & Fiberon Symmetry™ Cross-Section

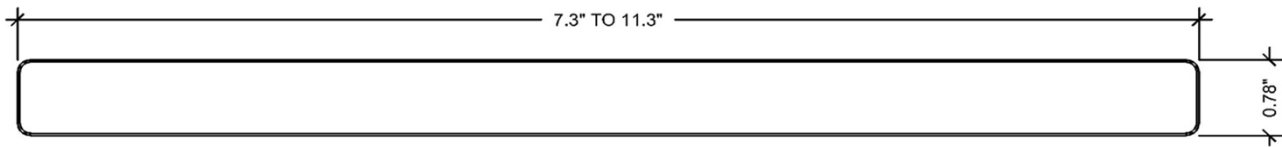


Figure 2 - Fiberon Trim Board Cross-Section

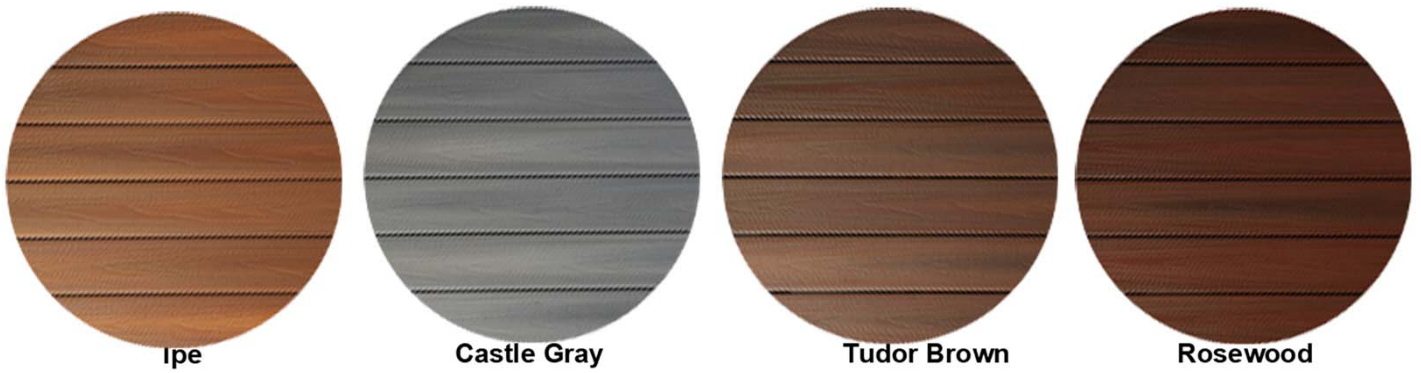


Figure 3 - Fiberon Horizon™ Cladding & Fiberon Trim Board Approved Colors

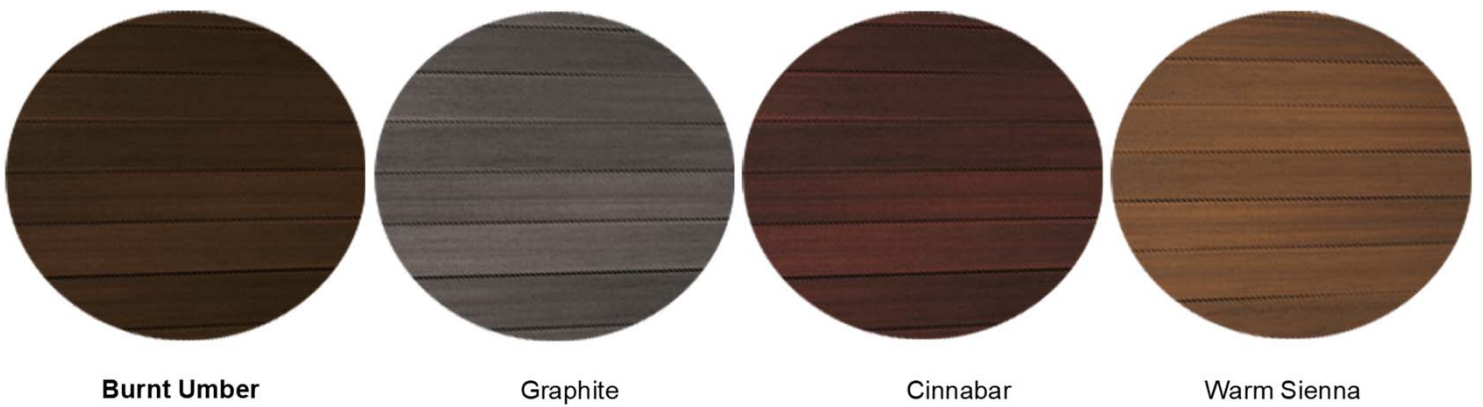


Figure 4 - Fiberon Symmetry™ Cladding & Fiberon Trim Board Approved Colors

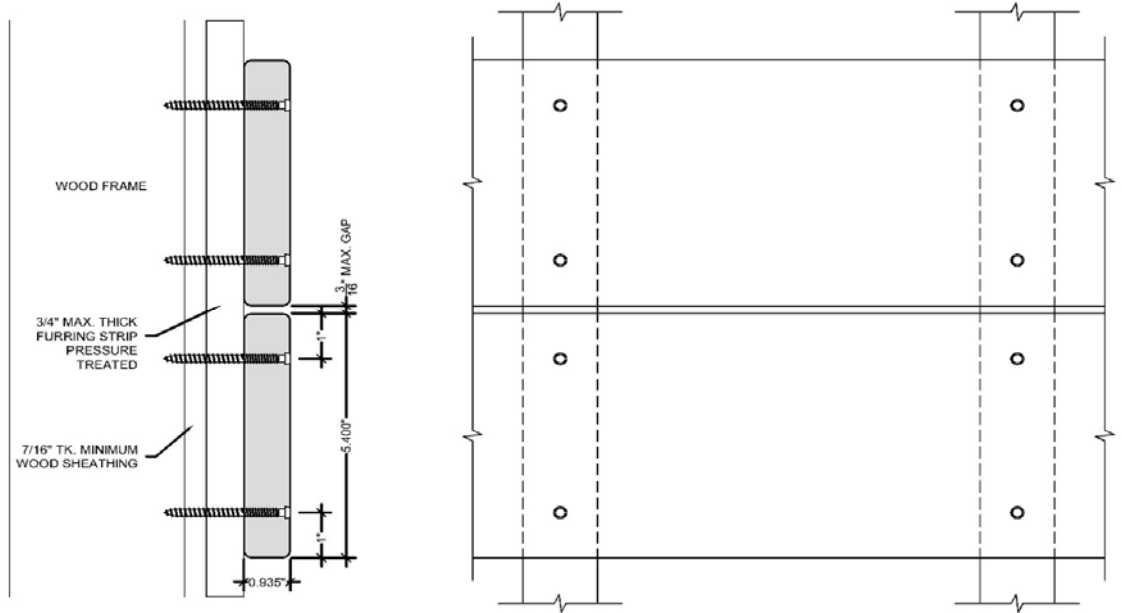


Figure 5 - Fastening Illustration only-Horizontal Application

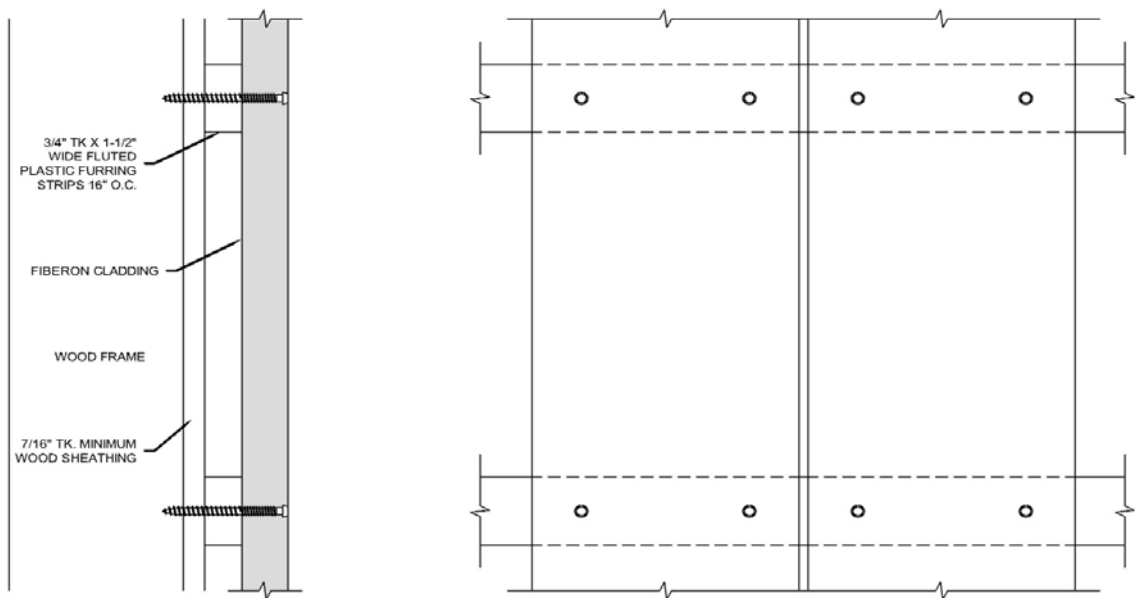


Figure 6 - Fastening Illustration only-Vertical Application



Figure 7 - #9 x 2-1/2-inch Composite Deck Screw

Storage and Handling

Fiberon Horizon™ Cladding, Fiberon Symmetry™ Cladding, and Fiberon Trim Boards must be stored in a level manner, properly supported every 2-ft o.c. Storing the product in a location with a temperature comparable to the installation environment will reduce temperature acclimation time.

Product Labeling

Each cladding and Trim 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 and Date Code
4. This **PER** Number and **Pei Evaluation Service®** Logo

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: 3/20/2018

Fiber Composites, LLC Installation Instructions for Horizon and Symmetry Cladding - Dated: 6/2018

Pei Test Report No. 2017-0560 Evaluation of Fiberon Horizon Cladding - Stamped by a Professional Engineer - Dated: 9/22/17

Test Report No. H4993.01-121-24 - E84-16 Standard Test Method For Surface Burning Characteristics of Building Materials - Dated: 10/4/2017

Test Report No. 2014 ATI-SB3 - AWWA E10-12 Standard Method of Testing Wood Preservatives by Laboratory Soil-Block Cultures - Dated: 9/22/2014

Test Report No. 2014 ATI-T3 - AWWA Standard E1-13 - Standard Method for Laboratory Evaluation to Determine Resistance to Subterranean Termites - Dated: 6/23/2014

Pei Calculations Project No. 2017-0832 - Allowable wind Capacity Calculation

Test Report No. F7513.01-109-18 - TAS 201, 202, and 203 Testing in Accordance with Florida Building Code for High Velocity Hurricane Zone and Miami-Dade County Requirements - Dated: 5/19/2016

SwRI Project No. 01.22387.17.130 - Fire Performance Evaluation in Accordance with NFPA 268 (2017) Standard Test Method for Determining Ignitability of Exterior Wall Assemblies using a Radiant Heat Energy Source - Dated: 11/3/2017

Test Report No. F7994.01-109-18 - TAS 201, 202, and 203 Testing in Accordance with Florida Building Code for High Velocity Hurricane Zone and Miami-Dade County Requirements - Dated: 5/19/2016

Pei Test Report No. 2018-6121 ASTM E330 Negative Wind load Test on Fiberon Horizon Siding (Vertical) - Stamped by a Professional Engineer - Dated: 4/17/18