



**PERFORMANCE TEST REPORT**

Rendered to:

**FIBER COMPOSITES LLC**

For:

*Good Life*

**HDPE/Wood-Plastic Composite Exterior Decking**

**Report No.: D8112.02-119-19**

**Report Date: 09/08/15**

**Test Record Retention Date: 05/05/15**



## PERFORMANCE TEST REPORT

Rendered to:

FIBER COMPOSITES LLC  
181 Random Drive  
New London, North Carolina 28127

Report No.: D8112.02-119-19  
Test Date: 05/05/15  
Report Date: 09/08/15  
Test Record Retention Date: 05/05/15

### 1.0 General Information

#### 1.1 Product

*Good Life* Wood-Plastic Composite Deck Boards

#### 1.2 Project Description

Architectural Testing, Inc., an Intertek company (“Intertek-ATI”), was contracted by Fiber Composites LLC to perform testing on their *Good Life* wood-plastic composite deck boards. The purpose of the testing is code compliance evaluation in accordance with the following criteria:

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

#### 1.3 Qualifications

Intertek-ATI has demonstrated compliance with ISO/IEC International Standard 17025 and is consequently accredited as a Testing Laboratory (TL-144) by International Accreditation Service, Inc. (IAS). Intertek-ATI is accredited to perform all testing reported herein.

#### 1.4 Product Description

*Good Life*<sup>™</sup> deck boards are co-extruded with a base composite material composed of part high-density polyethylene (HDPE) and part wood fiber with a polymer capstock on the top and side surface only (semi-capped). The manufactured product is intended for use as an exterior walking deck board. The mixture used in the processing of the product is extruded through a continuous feed system and is produced as a deck board measuring a nominal 1 in thick and 5-5/16 in wide with 1/8 in radius edges. Two 1 in wide by 1/4 in deep flutes run the length of the underside of the deck board. Test specimens consisted of both solid and grooved deck boards. The top surface has an embossed simulated wood-grain pattern. Test specimens consisted of THREE different colored products identified by the manufacturer as follows: Cabin, Cottage and Villa. Reference Appendix A for product drawings that verify the overall dimensions and other pertinent information of the tested product.

## 1.5 Product Sampling

All *Good Life* deck boards were marked PFS 11-10-14 and initialed with permanent marker as an indication that they were selected by PFS Corporation (independent inspection agency). All test specimens were supplied by Fiber Composites LLC and were marked as indicated. See photograph in Appendix B for typical sampling mark.

## 1.6 Witnessing

There were no witnesses from Fiber Composites LLC present for testing conducted and reported herein.

## 1.7 Conditions of Testing

Unless otherwise indicated, the conditions of testing were laboratory ambient conditions with temperature in the range of  $68 \pm 4^{\circ}\text{F}$  and  $50 \pm 5\% \text{ RH}$ . All test specimen materials were stored in the laboratory conditions indicated for no less than 40 hours prior to testing.

## 2.0 ASTM F1679 Slip Test

### 2.1 Test Procedure

Tests were performed using an *English XL* Tribometer equipped with a Neolite<sup>®</sup> test foot surface. The test foot material was prepared by gently sanding the surface with 180 grit silicon carbide paper on a flat block, making five circular passes prior to testing and after each dry slip reading was obtained. Testing was performed on the walking surface of each specimen in four directions, starting parallel with the extruded direction of the specimen ( $0^{\circ}$ ) and proceeding in subsequent  $90^{\circ}$  intervals. Slip readings were taken in each direction at randomly selected locations on each specimen. Test readings in the  $0^{\circ}$  and  $180^{\circ}$  directions were reported as longitudinal. Test readings in the  $90^{\circ}$  and  $270^{\circ}$  directions were reported as transverse. After dry testing, each specimen was retested in a wet condition at new, randomly selected locations.

## 2.2 Test Results

Dry Conditions							
Direction	3-4A	3-4B	3-3A	3-3B	2-8A	2-8B	Average
0°	0.325	0.325	0.325	0.375	0.350	0.375	<b>0.35</b>
90°	0.350	0.375	0.325	0.375	0.375	0.375	<b>0.36</b>
180°	0.350	0.350	0.350	0.425	0.375	0.375	<b>0.37</b>
270°	0.350	0.400	0.375	0.400	0.400	0.425	<b>0.39</b>

Wet Conditions							
Direction	3-4A	3-4B	3-3A	3-3B	2-8A	2-8B	Average
0°	0.300	0.350	0.325	0.350	0.325	0.325	<b>0.33</b>
90°	0.325	0.350	0.325	0.350	0.325	0.350	<b>0.34</b>
180°	0.300	0.325	0.325	0.300	0.325	0.300	<b>0.31</b>
270°	0.300	0.350	0.350	0.350	0.350	0.350	<b>0.34</b>

## 2.3 Test Summary

Direction	Condition	Slip Index
Longitudinal	Dry	<b>0.36</b>
	Wet	<b>0.32</b>
Transverse	Dry	<b>0.38</b>
	Wet	<b>0.34</b>

### 3.0 Closing Statement

Intertek-ATI will service this report for the entire test record retention period. Test records that are retained such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation will be retained by Intertek-ATI for the entire test record retention period.

Results obtained are tested values and were secured using the designated test methods. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client so named herein and relates only to the specimens tested. This report may not be reproduced, except in full, without the written approval of Intertek-ATI.

For INTERTEK-ATI:



Digitally Signed by: Virgal Thomas Mickley, Jr.

Virgal T. Mickley, Jr., P.E.  
Senior Project Engineer  
Structural Systems Testing



Digitally Signed by: Travis Hoover

Travis A. Hoover  
Program Manager  
Structural Systems Testing

VTM:vtm/tah/ddr

Attachments (pages): This report is complete only when all attachments listed are included.

Appendix A - Drawings (1)

Appendix B - Photographs (2)

### Revision Log

<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
0	09/08/15	N/A	Original report issue

This report produced from controlled document template ATI 00647, revised 04/07/15.



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## **APPENDIX A**

### **Drawings**



**Architectural Testing**

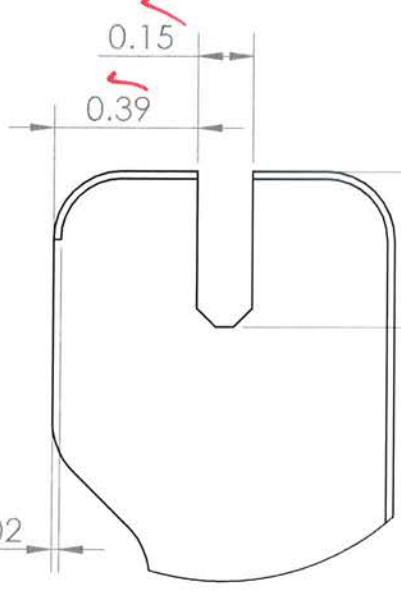
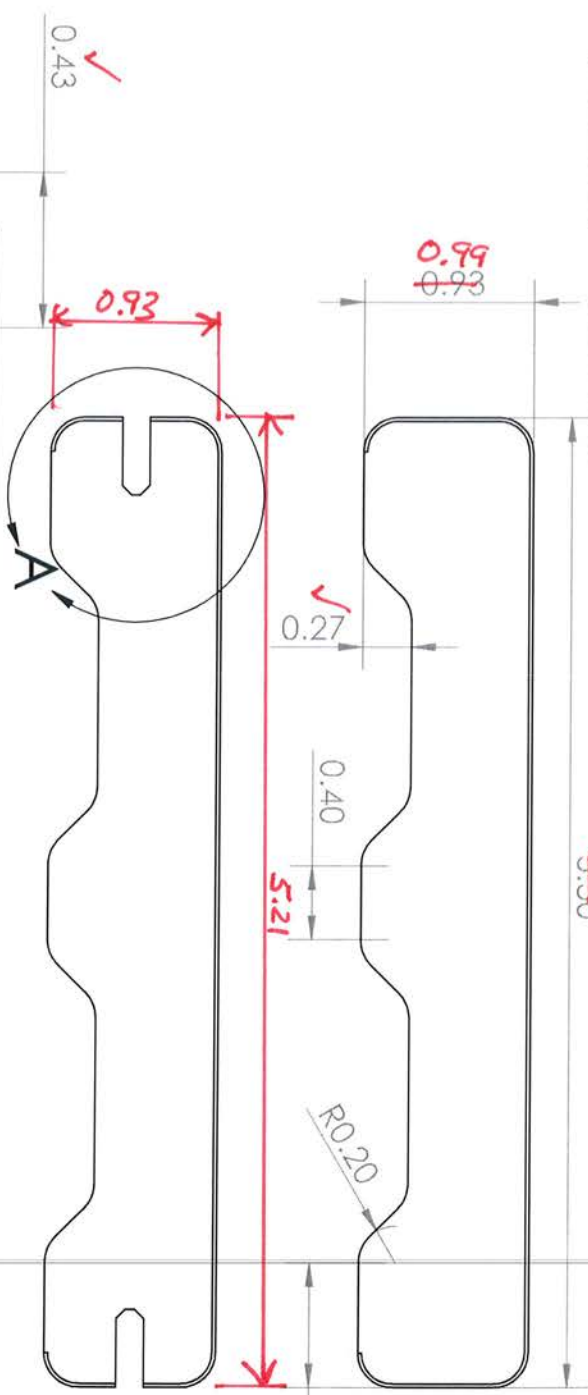
Test sample complies with these details.  
Deviations are noted.

Report # **D8112-02-119-14**

Date **8-5-15** Tech **T. MICKLER**

REV. A		REVISIONS	
REV.	ECN#	DESCRIPTION	DATE
A		INITIAL DRAWING	12/17/2014
			A. WOOD

**5.26**  
**5.30**



**DETAIL A**

SCALE 2 : 1

**fiberon** FIBER COMPOSITES, LLC.  
181 RANDOM DRIVE  
NEW LONDON, NC 28127

TITLE: **GOODLIFE DECKING**

SIZE DWG. NO. **A 010-0045** REV **A**

SCALE: 1:1 SHEET 1 OF 1

SQUARE EDGE GROOVED		CORE MATL		PE/WOOD COMPOSITE	
CORE AREA	4.021 in <sup>2</sup>	CORE AREA	3.905 in <sup>2</sup>	CORE MATL	PE/WOOD COMPOSITE
CAP AREA	0.143 in <sup>2</sup>	CAP AREA	0.137 in <sup>2</sup>	CAP MATL	POLYETHYLENE
EXTRUDED WT					
CORE WEIGHT	1.917 lb/ft	CORE WEIGHT	1.862 lb/ft		
CAP WEIGHT	0.068 lb/ft	CAP WEIGHT	0.065 lb/ft		
TOTAL WEIGHT	1.985 lb/ft	TOTAL WEIGHT	1.927 lb/ft		

DO NOT SCALE DRAWING

NAME	DATE
DRAWN A. WOOD	12/3/14
CHECKED	

PROPRIETARY AND CONFIDENTIAL  
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF FIBER COMPOSITES, LLC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF FIBER COMPOSITES, LLC, IS PROHIBITED.

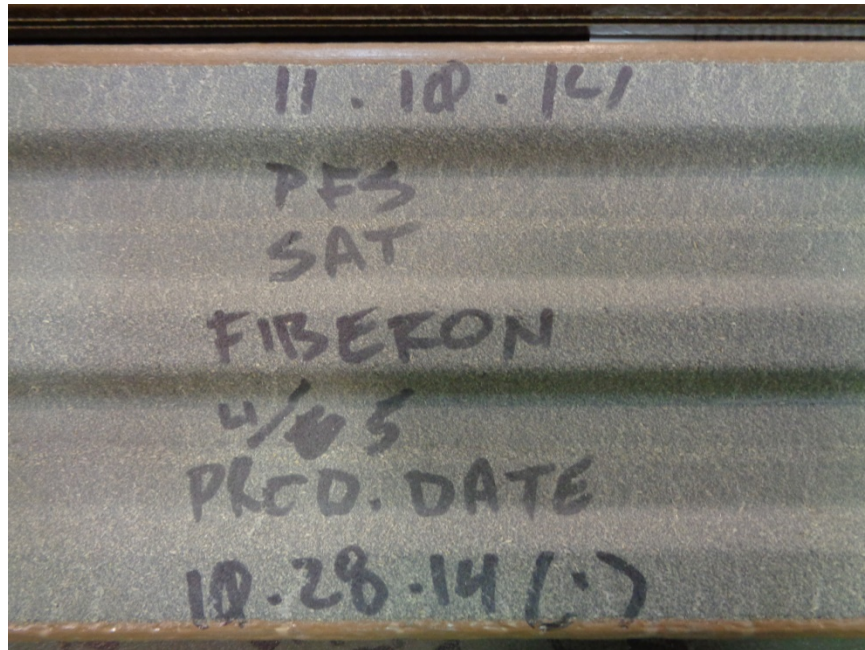




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## **APPENDIX B**

### **Photographs**



**Photo No. 1**  
**Typical Sampling Markings**



**Photo No. 2**  
***English XL Tribometer***



**Photo No. 3**  
**Slip Resistance Test Setup**