Architectural Testing

SLIP RESISTANCE
PERFORMANCE TEST REPORT

Rendered to:

FIBER COMPOSITES CORPORATION

PRODUCT: *Fiberon*® Tropics Decking

Report No.: 63090.01-119-19
Report Date: 04/26/06

130 Derry Court
York, PA 17402-9405
phone: 717-764-7700
fax: 717-764-4129
www.archtest.com

Architectural Testing

SLIP RESISTANCE PERFORMANCE TEST REPORT

Rendered to:

FIBER COMPOSITES CORPORATION
34570 Random Drive
New London, North Carolina 28127

Report No: 63090.01-119-19
Test Date: 02/16/06
Report Date: 04/26/06

Product: *Fiberon*® Tropics Decking with Smooth Deglossed Surface

Project Summary: Architectural Testing, Inc. (ATI) was contracted by Fiber Composites Corporation to perform evaluation tests for coefficient of friction of their *Fiberon*® Tropics Decking. The product was evaluated for static coefficient of friction and was tested in accordance with ASTM D 2394-99, *Standard Methods for Simulated Service Testing of Wood and Wood-Base Finish Flooring*.

Product Description: *Fiberon*® Decking is an extruded composite material consisting of a combination of Polyethylene/Polypropylene and wood fiber. The manufactured product is a solid composite board intended for use as an exterior walking deck plank measuring a nominal 1" thick by 5-3/8" wide with 1/4" radius edges. The tested surface was smooth and deglossed. The name of the color of the samples utilized in this test program was Jatoba.

Product Sampling: All Fiberon® deck boards were marked PFS 1-26-06 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 Corporation marked as indicated. See photographs in Appendix A for typical sampling mark.

Conditions of Testing: Unless otherwise indicated, the conditions of testing were laboratory ambient conditions with temperature in the range of 68 ±4ºF and 50 ±5% RH. All test specimen materials were stored in the laboratory conditions indicated for no less than 40 hours prior to testing.

130 Derry Court
York, PA 17402-9405
phone: 717-764-7700
fax: 717-764-4129
www.archtest.com

Test Procedure: Twelve total deck board test specimens were cut to 9" lengths from production deck boards. Six test specimens were used for testing dry conditions, and six test specimens were used for testing wet conditions. Each specimen was placed on a fabricated sliding unit specified by the ASTM D 2394 standard. The 26.22 pound sliding unit consists of a 25 pound calibrated weight, a wooden cleated sled, and a 4-1/2" by 4" by 1/4" thick prime grade leather tile. The leather tile was the sliding surface in direct contact with the test board. Prior to each slip load measurement, the leather surface was lightly sanded and dry-brushed clean of debris. Using a universal testing machine equipped with a 50-pound x 0.01 pound load cell, the sled was attached by a single steel cable and pulled at a constant rate of cross-head motion equal to 0.05" per minute until the load to break the static friction was reached. This value was recorded as the slip load. Tests were conducted parallel with the deck board (0 degrees), 90 degrees, 180 degrees, and 270 degrees on six dry specimens. The same tests were then performed under wet conditions. Using six different specimens, evaluations were conducted in wet conditions where the boards and the leather tile were saturated with a water spray that resulted in a standing puddle on the surface of the board. The sliding unit was again placed on top of the wetted surface and pulled to determine the slip load with the peak value being recorded. All slip loads were recorded and divided by the sliding unit weight to determine the static coefficient of friction.

Test Results:

Dry Slip Load (lb)

Direction	1	2	3	4	5	6	Avg.	Coefficient of Friction [1]
0º	10.07	9.94	10.30	10.37	9.65	10.75	10.18	0.39
90º	12.63	11.79	11.65	12.65	12.22	10.71	11.94	0.46
180º	9.82	11.01	10.76	9.58	11.52	10.63	10.55	0.40
270º	12.86	12.77	13.30	12.61	12.42	12.20	12.69	0.48
							Overall Average	**0.39**

Wet Slip Load (lb)

Direction	1	2	3	4	5	6	Avg.	Coefficient of Friction [1]
0º	18.92	17.93	18.14	16.59	16.90	16.94	17.57	0.67
90º	20.42	18.18	19.11	18.85	18.94	18.84	19.06	0.73
180º	19.68	18.48	18.77	18.85	17.18	17.78	18.46	0.70
270º	20.54	19.81	20.25	20.83	19.25	19.42	20.01	0.76
							Overall Average	**0.72**

[1] *Static Coefficient of Friction (S.C.F.) is calculated as follows:*

$$SCF = \left(\frac{Average\ Slip\ Load}{Sliding\ Unit\ Weight} \right)$$

A copy of this report and all supporting data will be retained by ATI for a period of four years. This report is the exclusive property of the client so named herein and is applicable only to the samples tested. Results obtained are tested values and do not constitute an opinion or endorsement by this laboratory. This report may not be reproduced, except in full, without the approval of Architectural Testing.

For ARCHITECTURAL TESTING, INC.:

Digitally Signed by: Justin M. Mann

Justin M. Mann
Technician

Digitally Signed by: Craig H. Wagner

Craig H. Wagner, P.E.
Director - Code Compliance

JMM:jmm/nlb

Attachments (pages)
Appendix A - Photographs (2)

Revision Log

Rev. #	Date	Page(s)	Revision(s)
0	04/26/06	N/A	Original report issue

APPENDIX A

Photographs

Photo No. 1
Test Specimen (Jatoba-colored *Fiberon*® Tropics Decking)

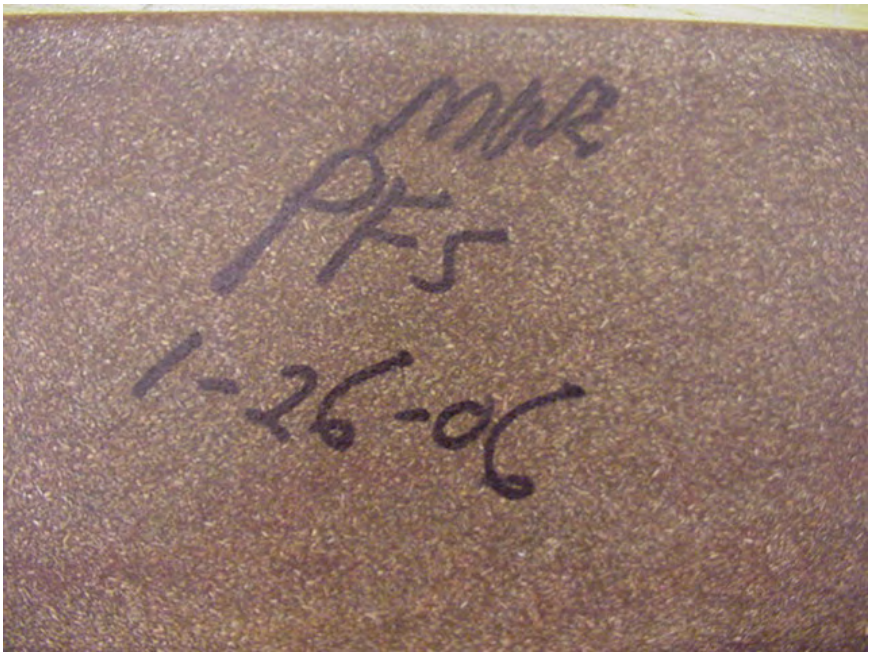

Photo No. 2
Sampling Mark

Photo No. 3
Test Setup