

Grinwood WPC Material Co., Ltd.

TEST REPORT

SCOPE OF WORK

Co-extrusion WPC fence system

REPORT NUMBER

220523010SHF-003

TEST DATE(S)

2022-06-14

ISSUE DATE

2022-06-28

PAGES

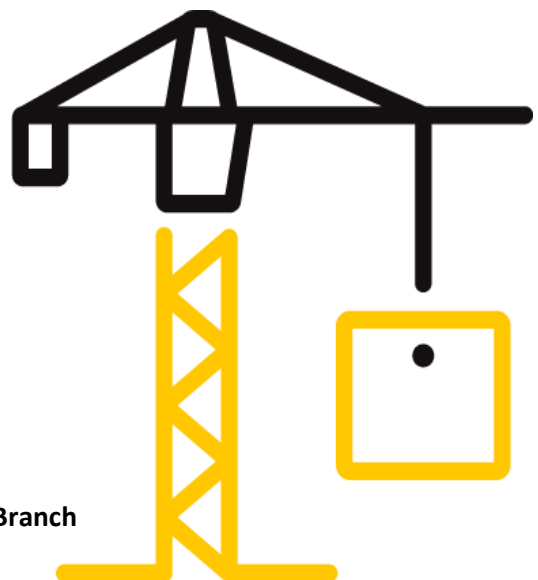
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DOCUMENT CONTROL NUMBER

LFT-APAC-SHF-OP-10k(May 1, 2021)

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Intertek Testing Services Shenzhen Ltd. Shanghai Fengxian Branch



Test Report

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Test Report

Issue Date: 2022-06-28 Intertek Report No. 220523010SHF-003
Applicant: Grinwood WPC Material Co., Ltd.
Address: Longquanwu Eco-industrial Zone, Miaoxi, Huzhou, Zhejiang, China
Attn: Yu Gang
Test Type: Performance test, samples provided by the applicant.

Product Information

Product Name	Co-extrusion WPC fence system	Brand	/
Sample Description	Good Condition	Sample Amount	1 pcs
		Received Date	2022-05-26
Sample ID	Model	Specification	
S220523010SHF.003	GW906 fence system	166 mm (W) x 20 mm (H)	

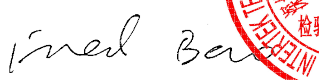
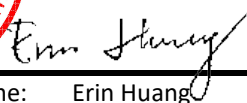
Test Methods And Standards

Test Standard	In House Method
Specification Standard	In House Method
Test Conclusion	The samples were tested according to the above standards, and the results are shown in the following page.

Note:

1.This report relates specifically to the sample(s) that were drawn and provided by the applicant or their nominated third party. The reported result(s) provide no warranty or verification on the sample(s) representing any specific goods and/or shipment and only relate to the sample(s) as received and tested.

Report Authorized



Name: Fred Bao
Title: Reviewer

Name: Erin Huang
Title: Project Engineer

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Issue Date: 2022-06-28

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Test Items, Method and Results:

1. Wind Load Testing Method

The duration of the applied wind load at each wind speed was determined by using the following equation:

$$t = 3600 / V_{fm} \quad (\text{Equation 1})$$

where:

t = duration (s), required for a one mile long sample of air to pass

V_{fm} = "fastest mile" wind speed (mph)

Wind speeds used in testing correlate with "fastest mile" wind speeds (V_{fm}) for reference to codes and design standards. Maximum deflections were recorded at each load level.

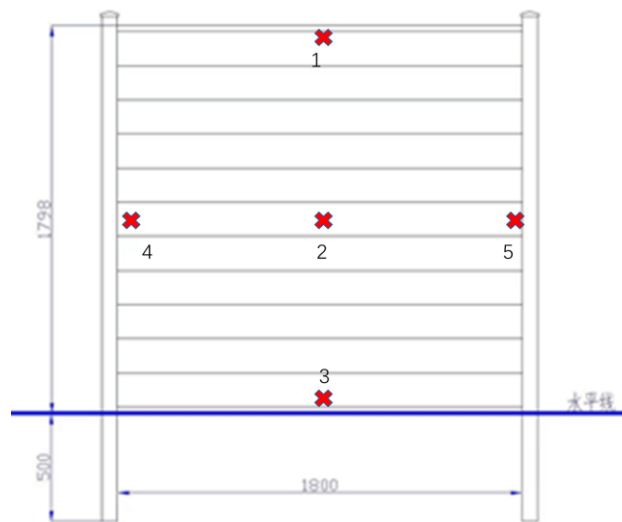
2. Test Results

Wind Speed	Duration	Maximum Defflection(inches)				
		1	2	3	4	5
50 mph	72 sec	0.69	0.64	0.24	0.17	0.16
56 mph	65 sec	0.90	0.83	0.30	0.22	0.22
0 mph	Permanent Set	0.07	0.10	0.09	0.04	0.05
69 mph	52 sec	1.32	1.13	0.43	0.32	0.32
80 mph	45 sec	1.99	1.77	0.78	0.54	0.53
90 mph	40 sec	2.04	2.04	0.99	0.67	0.62
0 mph	Permanent Set	0.21	0.32	0.32	0.08	0.07
110 mph	33 sec	No damage was observed during test. ¹				

Result: Specimen sustained maximum wind load of 110 mph and no damage was observed during test.

Note 1: According to customer requirements, the maximum wind speed does not need to record deformation data.

3. The position of transducers



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Appendix A: Test Photos and Sample Drawings:

A.1 Test Photos



Photo No.1 Before Wind load Testing

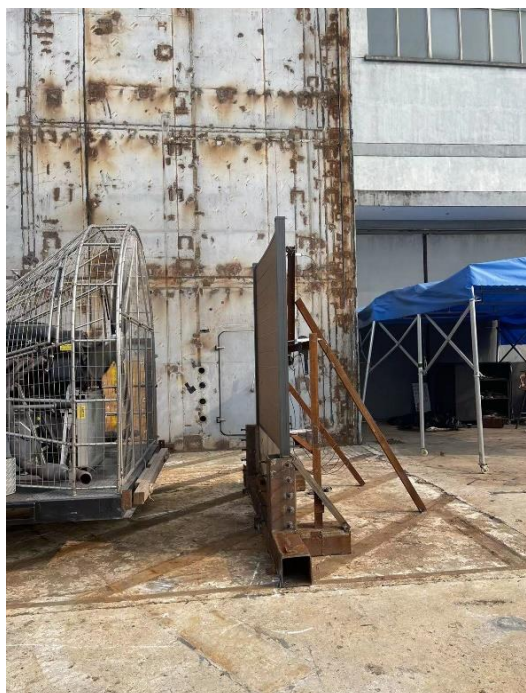


Photo No.2 The specimen under wind load

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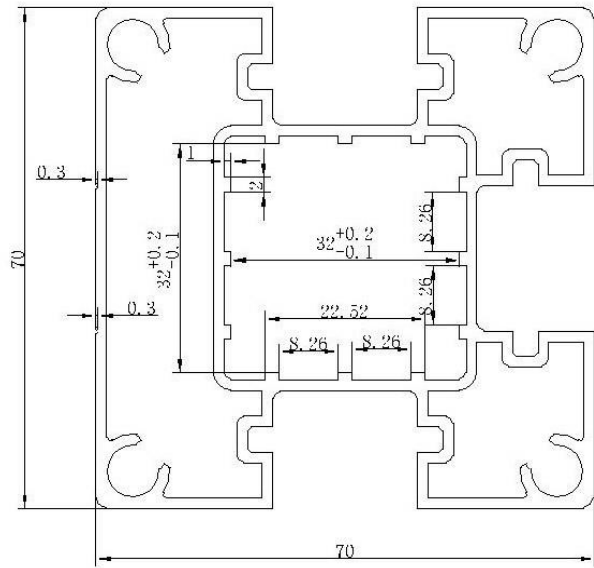
Photo No.3 After Wind load Testing

Test Report

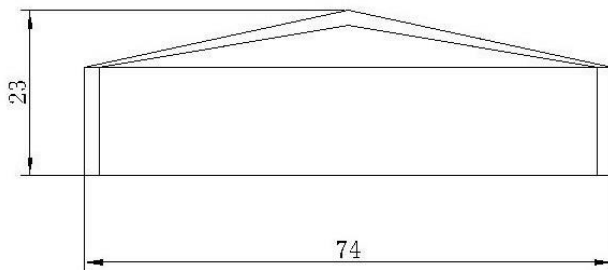
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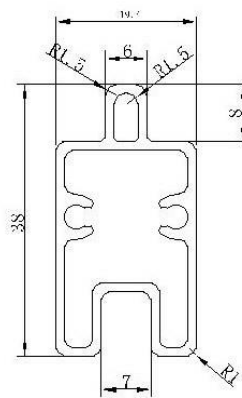
A.2 Sample Drawings



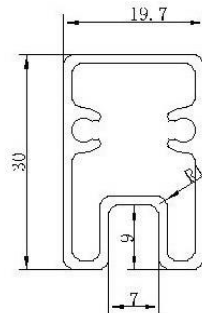
aluminium post 1850mm+500mm
underground



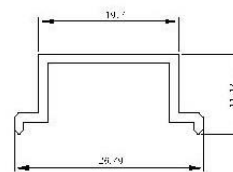
PE post cap



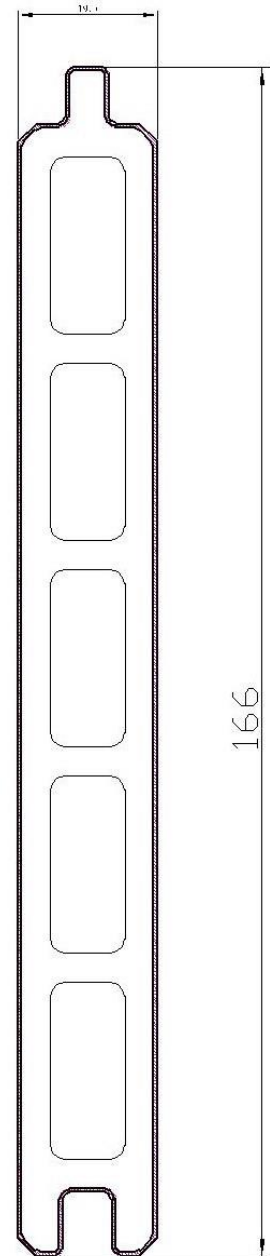
aluminium
bottom cover
1820mm



aluminium top
cover 1820mm



aluminium post side cover
1850mm+500mm
underground



co-extrusion WPC
fence board
1830mm

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Appendix B: Sample Received Photo



Front View

Revision:

NO.	Date	Changes
220523010SHF-003	2022-06-28	First issue