

EnviroBuild Materials Ltd

TEST REPORT

SCOPE OF WORK

Hyperion WPC Fencing

REPORT NUMBER

210112003SHF-001

TEST DATE(S)

2021/1/25

ISSUE DATE

2021-02-22

PAGES

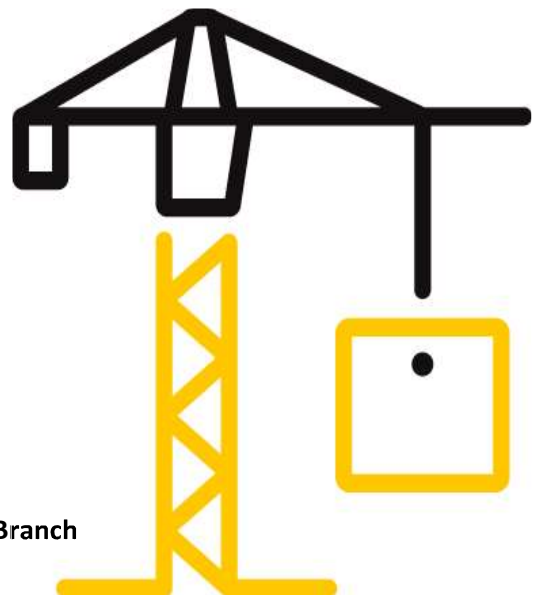
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Test Report

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Test Report

Issue Date: 2021-02-22 Intertek Report No. 210112003SHF-001
 Applicant: EnviroBuild Materials Ltd
 Address: 25 Lavington Street, London, SE1 ONZ
 Attn: Mr. James Brueton
 Manufacturer:
 Address:
 Test Type: Performance test, samples provided by the applicant.

Product Information

Product Name	Hyperion WPC Fencing	Brand	/
Sample Description	Good Condition	Sample Amount	1 pcs
		Received Date	2020-11-20
Sample ID	Model	Specification	
S210112003SHF.001	196F189	1960 (W) x 2000 (H) mm	

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

Fred Bao  *Zac Zhang*
 Name: Fred Bao Title: Reviewer
 Name: Zac Zhang Title: Project Engineer

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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:

$$t = 3600 / V_{fm} \tag{Equation 1}$$

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

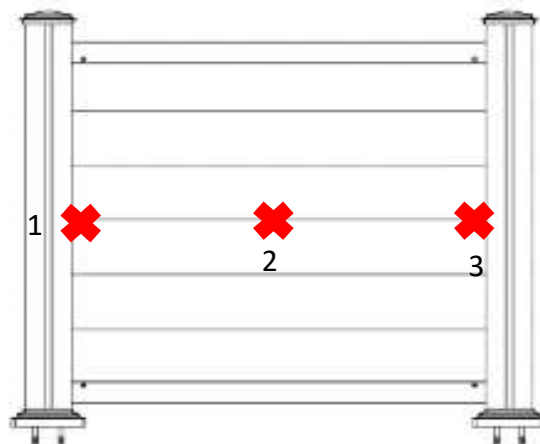
Wind Speed	Duration	Maximun Defflection(inches)		
		1	2	3
50 mph	72 sec	1.64	1.88	1.54
55 mph	65 sec	2.28	2.47	1.97
0 mph	Permanent Set	0.61	0.49	0.42
63 mph	57 sec	-	-	-
69 mph	52 sec	-	-	-
77 mph	47 sec	-	-	-

Results:

(1) The specimen was able to sustain under the dynamic wind load created by the wind speed of 63 mph and maximum wind speed of 69 mph without visible deformation or damage.

(2) But when the dynamic wind load was created by the wind speed of 77 mph for 47 seconds, the feet of the fence were deformed and damaged. The specimen was not able to sustain in this dynamic wind load. Please see Photos for details.

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 at wind speed of 77 mph for 47 seconds



Photo No.4 The feet of fence were damaged at wind speed of 77 mph for 47 seconds

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Photo No.5 The feet of fence were damaged at wind speed of 77 mph for 47 seconds

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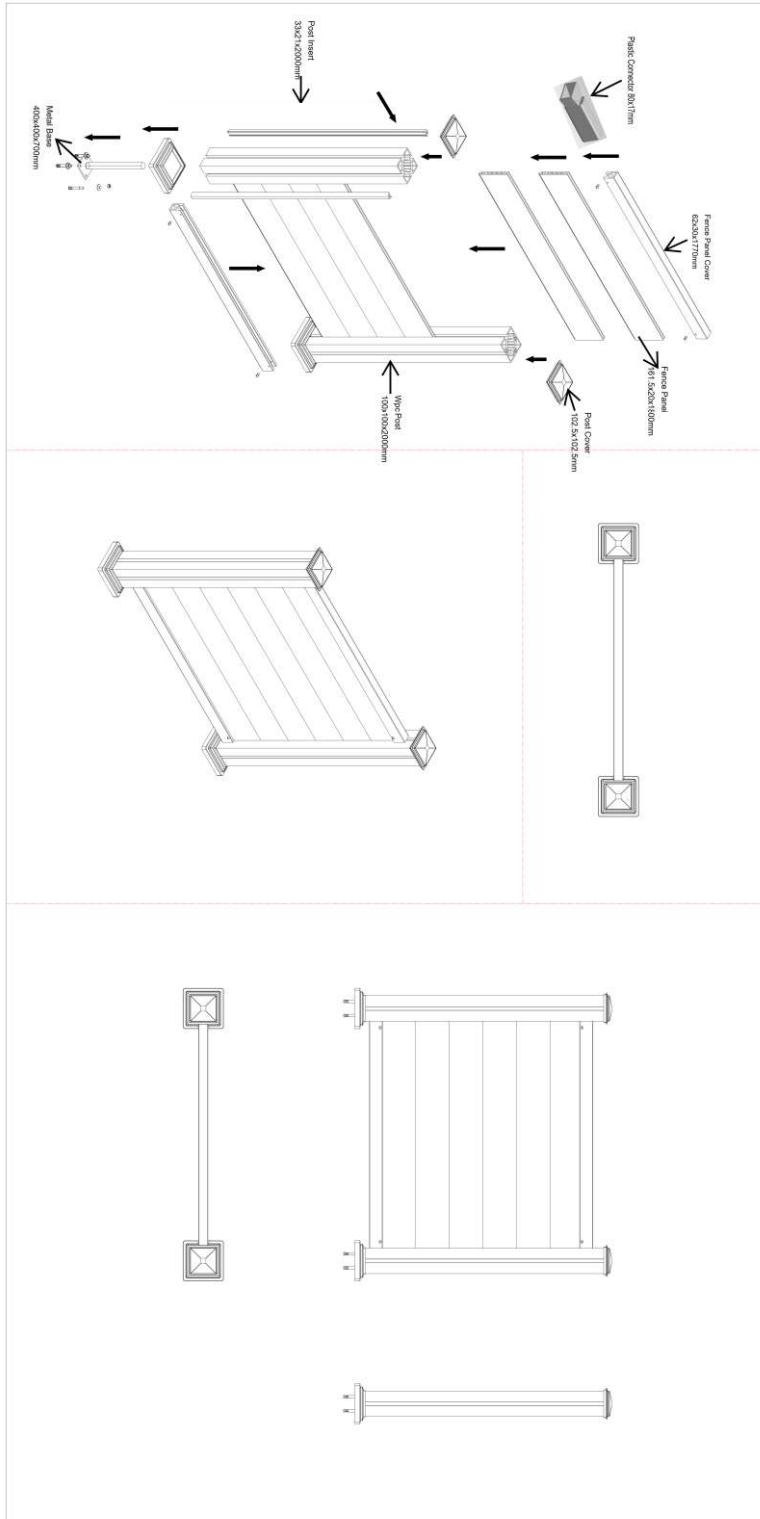
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A.2 Sample Drawings



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Appendix A: Sample Received Photo



Front View

Revision:

NO.	Date	Changes	Author	Reviewer
210112003SHF-001	2021-02-22	First issue	Zac Zhang	Fred Bao