

Grinwood WPC Material Co., Ltd.

TEST REPORT

SCOPE OF WORK

Co-extrusion WPC Fence System

REPORT NUMBER

250106009SHF-001-R1

TEST DATE(S)

2025-01-10

ORIGINAL ISSUE DATE

2025-01-21

REVISED DATE

2025-01-24

PAGES

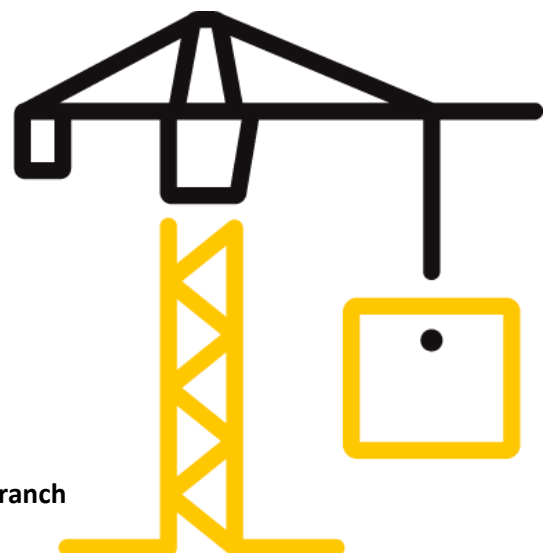
10

DOCUMENT CONTROL NUMBER

LFT-APAC-SHF-OP-10k(February 1, 2024)

© 2024 INTERTEK

Intertek Testing Services Shenzhen Ltd. Shanghai Fengxian Branch



Test Report

Statement

- 1.This report is invalid without company's special seal for testing on the assigned page.
- 2.This report is invalid without an authorized person's signature.
- 3.This report is invalid if altered.
- 4.Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Don't copy this report in partial without any official approval in written by our company. This report is invalid without re-stamping the special seal for testing in copying report.
- 5.This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample(s) tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.
- 6.Except for the obligation, responsibility and liability (if any) for the appropriateness and professionalism of afore-mentioned testing itself within the scope and amount of the testing fee received, Intertek does not and will not accept any other obligation or liability.
- 7.If the Client has any questions about the test results, Intertek B&C should be informed within the storage period of the samples. The sample storage period ends 5 working days after the official report issue date. Samples of certification program are retained for the period required by the certification rules. The samples storage period shall be calculated according to the issue date of the original report in the case of quoting results and modifying reports.
- 8.Intertek B&C will service this report for the entire test record retention period. The test record retention period ends 6 years after this report original issue date. The test record retention period for certification program is 10 years. Test records and other pertinent project documentation will be retained for the entire test record retention period.
- 9.The report was digital signed by Shang Hai, Intertek Group plc, please using Adobe Acrobat Reader to verify the authenticity.

Test Report

Original Issue Date: 2025-01-21 Revised Date: 2025-01-24 Intertek Report No. 250106009SHF-001-R1

Applicant: Grinwood WPC Material Co., Ltd.
Address: Longquanwu Eco-industrial Zone, Miaoxi, Huzhou, Zhejiang, China
Attn: Liu Jianjian
Test Type: Performance test, samples provided by the applicant.

Product Information

Product Name	Model	Specification
Co-extrusion WPC Fence System	GW948 Fence System	One Piece: 155mm * 1825mm Total: 12 Pieces
Sample ID	Sample Amount	Sample Received Date
S250106009SHF.001	1 Package	2025-01-02
Sample Description		
Received sample was in good condition.		

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 does not involve sampling. The report only reflects conformity of the tested items of the samples provided by the testing applicant. Representativeness and authenticity of the submitted samples are responsibilities of the testing applicant.

Report Authorized



Name: Fred Bao
Title: Reviewer

Name: Gio Liu
Title: Project Engineer

Test Report

Original Issue Date: 2025-01-21

Revised Date: 2025-01-24

Intertek Report No. 250106009SHF-001-R1

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.

The sizes of the entire specimen fence were 76 inch wide by 73 inch high. The sample was fixed on the cement floor with the anchor. See drawings in Appendix A for detailed descriptions of assembly and components. Transducers were fixed on the top, middle and bottom of the two columns, on the center of the infill area for deflection measurements.

2. Test Results

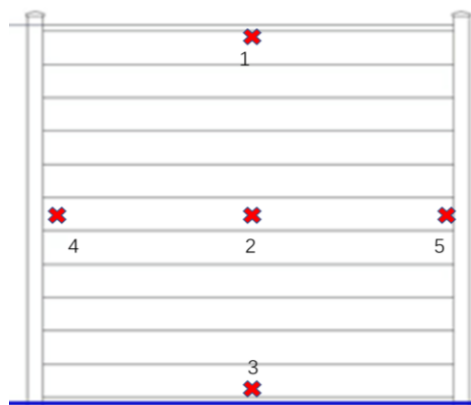
Wind Speed	Duration	Maximun Defflection(inches)				
		1	2	3	4	5
50 mph	72 sec	1.18	0.81	0.43	0.47	0.40
55 mph	65 sec	1.30	0.96	0.54	0.50	0.45
0 mph	Permanent Set	0.10	0.05	0.01	0.12	0.09
70 mph	52 sec	1.54	1.12	0.64	0.64	0.56
80 mph	45 sec	2.69	1.82	0.80	1.19	1.15
90 mph	40 sec	3.36	2.66	1.08	1.90	1.82
0 mph	Permanent Set	0.80	0.48	0.07	0.21	0.19
110 mph	33 sec	Specimen was damaged by wind load when the wind speed was increased to 100 mph. ¹				

Note:

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

2. Please see Appendix A Photos 4~7 for samples damaged photos.

3. The position of transducers specify by Applicant



Test Report

Original Issue Date: 2025-01-21

Revised Date: 2025-01-24

Intertek Report No. 250106009SHF-001-R1

Appendix A: Test Photos and Sample Drawings:

A.1 Test Photos



Photo No.1 The specimen was set on cement ground with transducers before wind load testing



Photo No.2 The specimen was under wind speed loading test

Test Report

Original Issue Date: 2025-01-21

Revised Date: 2025-01-24

Intertek Report No. 250106009SHF-001-R1



Photo No.3 The fence specimen after a wind speed of 90 mph testing



Photo 4. The fence specimen was damaged by the wind load at wind speed of 100 mph

Test Report

Original Issue Date: 2025-01-21

Revised Date: 2025-01-24

Intertek Report No. 250106009SHF-001-R1



Photo 5. The fence specimen was damaged by the wind load at wind speed of 100 mph



Photo 6. The fence specimen was damaged by the wind load at wind speed of 100 mph



Photo 7. The fence specimen was damaged by the wind load at wind speed of 100 mph

Test Report

Original Issue Date: 2025-01-21

Revised Date: 2025-01-24

Intertek Report No. 250106009SHF-001-R1

A.2 Sample Drawings

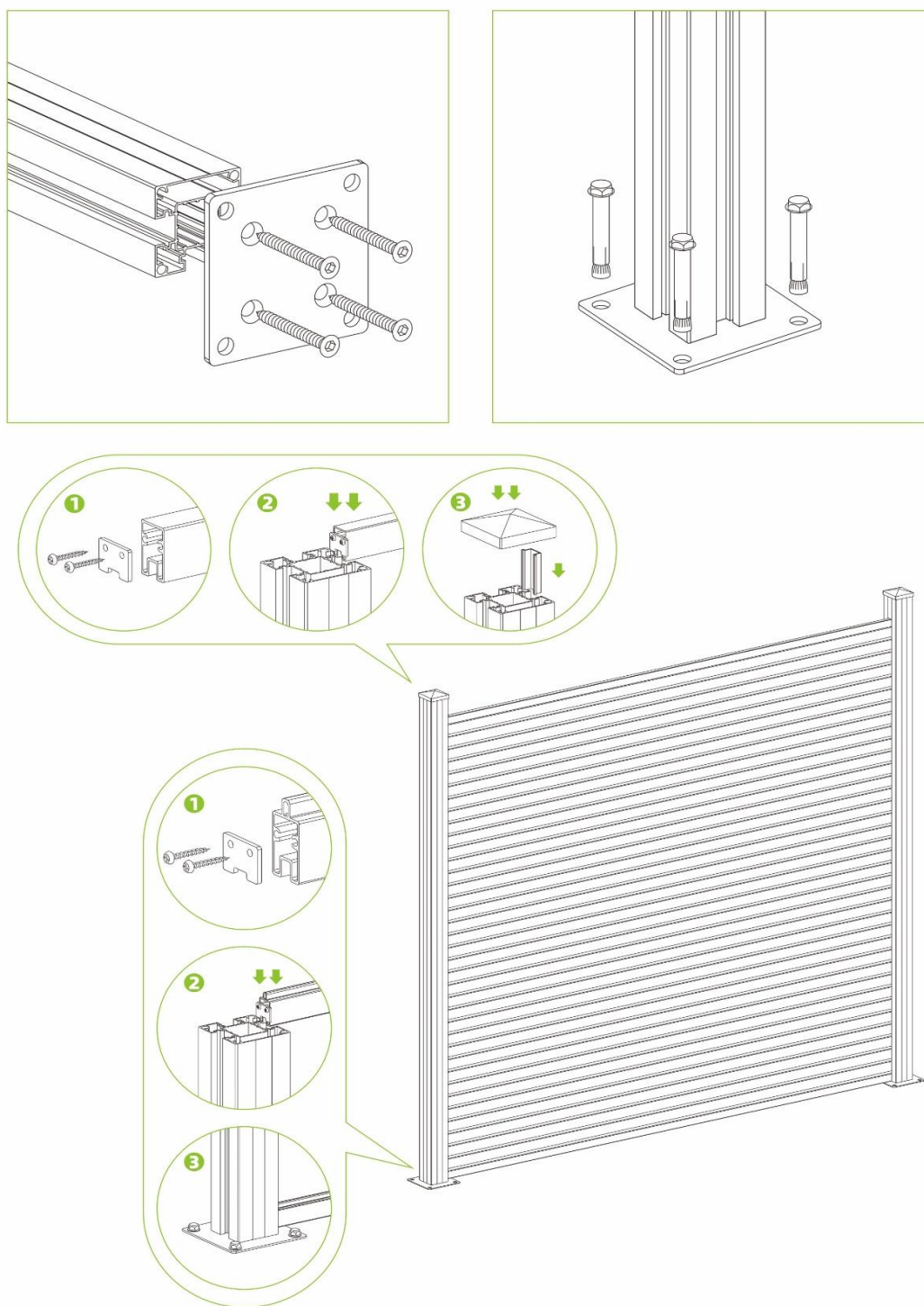


Fig.1 Sample Drawings

Test Report

Original Issue Date: 2025-01-21

Revised Date: 2025-01-24

Intertek Report No. 250106009SHF-001-R1

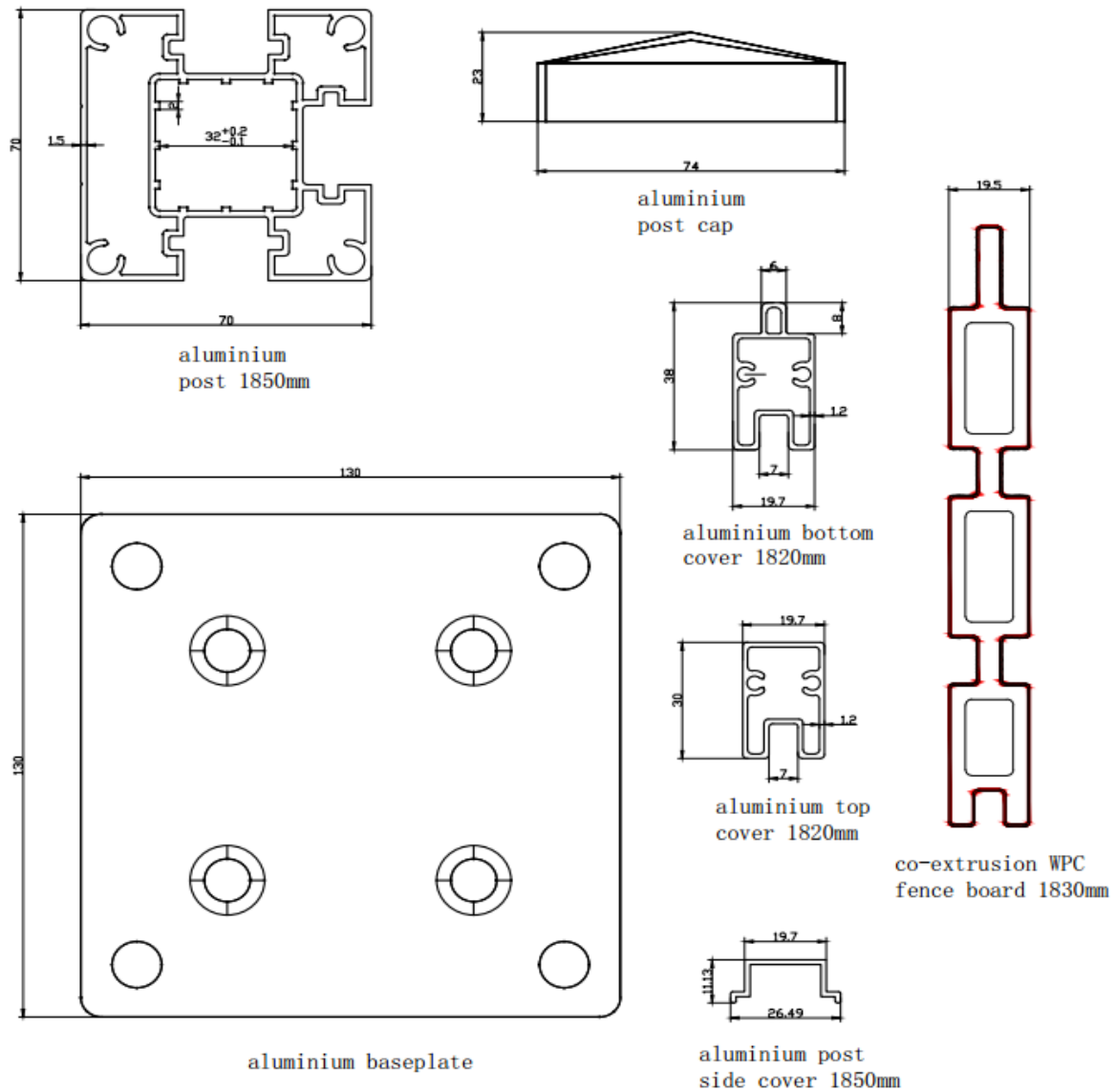


Fig.2 Sample Drawings

Test Report

Original Issue Date: 2025-01-21

Revised Date: 2025-01-24

Intertek Report No. 250106009SHF-001-R1

Appendix B: Sample Received Photo



Revision:

NO.	Date	Changes
250106009SHF-001	2025-01-21	First issue
250106009SHF-001-R1	2025-01-24	As per Applicant's request, the Drawing on Page 8 was revised.

Note: Since the issue date of 250106009SHF-001-R1 report, the original report 250106009SHF-001 was cancelled at the same time.