

Grinwood WPC Material Co., Ltd.

TEST REPORT

SCOPE OF WORK

Solid co-extrusion WPC decking

REPORT NUMBER

220523009SHF-006

TEST DATE(S)

2022-06-06 - 2022-08-09

ISSUE DATE

2022-08-17

PAGES

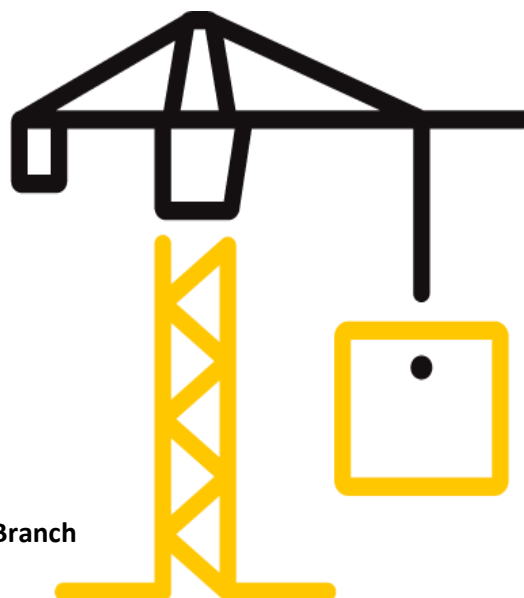
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DOCUMENT CONTROL NUMBER

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

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Test Report

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Test Report

Issue Date: 2022-08-17 Intertek Report No. 220523009SHF-006
Applicant: Grinwood WPC Material Co., Ltd.
Address: Longquanwu Eco-industrial Zone, Miaoxi, Huzhou, Zhejiang, China
Attn: Gang Yu
Test Type : Performance test, samples provided by the applicant.

Product Information

Product Name	Solid co-extrusion WPC decking	Brand	/
Sample Description	Good Condition	Sample Amount	16 pcs
		Received Date	2022-06-06
Sample ID	Model	Specification	
S220532009SHF.027~030	GW902	138X23MM	

Test Methods And Standards

Test Standard	EN 15534-4:2014 Section 4.5.1, 4.5.2, 4.5.3, 4.5.5 EN 15534-1:2014 Section 7.1.2.1, 7.4.1, 8.3.1, Annex A
Specification Standard	EN 15534-4:2014
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



Sally Xie *Flora Fan* *Erin Huang*

Name: Sally Xie Name: Flora Fan Name: Erin Huang

Title: Approver Title: Reviewer Title: Project Engineer

Test Report

Issue Date: 2022-08-17

Intertek Report No. 220523009SHF-006

Test Items, Method and Results:

EN 15534-4:2014 Composites made from cellulose-based materials and thermoplastics (usually called wood-polymer composites (WPC) or natural fibre composites (NFC)) Part 4: Specifications for decking profiles and tiles

Test Items	Test Method	Test Results	Test requirements	Verdict
Falling mass impact resistance	EN 15534-4:2014 Section 4.5.1 EN 15534-1:2014 Section 7.1.2.1	Type: Solid profile Max. Crack length (mm): No crack Max. Residual Indentation (mm): 0.09	None of 10 test specimens shall show a failure with a crack length ≥ 10 mm or a depth of residual indentation $\geq 0,5$ mm.	Pass

Note:

1. The falling mass was 1000g and the height was 700mm.

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Test Items	Test Method	Test Results	Test requirements	Verdict
Flexural properties	EN 15534-4:2014 Section 4.5.2 EN 15534-1:2014 Annex A	Bending Strength: 48.7 MPa Modulus of elasticity: 4043 MPa Maximum load: Mean: 6249 N Min.: 5876 N Deflection at 500N: Mean: 0.92 mm Max.: 0.97 mm	Flexural properties -F'max: Mean $\geq$ 3300 N Min. $\geq$ 3000 N -Deflection under a load of 500 N Mean $\leq$ 2,0 mm Max. $\leq$ 2,5 mm	Pass

Note:

1. The test span was 350mm offered by applicant.

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Test Items	Test Method	Test Results	Test requirements	Verdict
Creep behaviour	EN 15534-4:2014	Span: 350 mm	Known span in use	Pass
	Section 4.5.3	Mean ΔS : 2.11 mm	Mean $\Delta S \leq 10$ mm	
	EN 15534-1:2014	Max. ΔS : 2.17 mm	Max. $\Delta S \leq 13$ mm	
	Section 7.4.1	Mean ΔS_r : 0.55 mm	Mean $\Delta S_r \leq 5$ mm	



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Test Items	Test Method	Test Results	Test requirements	Verdict
Swelling and water absorption (28 days immersion)	EN 15534-4:2014 Section 4.5.5 EN 15534-1:2014 Section 8.3.1	Mean Swelling: 0.39 % in thickness 0.09 % in width 0.15 % in length Max. Swelling: 0.72 % in thickness 0.21 % in width 0.21 % in length Water absorption: Mean: 0.24 % Max.: 0.26 %	Means swelling: ≤ 4 % in thickness $\leq 0,8$ % in width $\leq 0,4$ % in length Max. swelling: ≤ 5 % in thickness $\leq 1,2$ % in width $\leq 0,6$ % in length Water absorption: Mean ≤ 7 % Max. ≤ 9 %	Pass

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Appendix A: Sample Received Photo



Front view



Back view



Section view

Revision:

NO.	Date	Changes
220523009SHF-006	2022-08-17	First issue