

Grinwood WPC Material Co., Ltd.

TEST REPORT

SCOPE OF WORK

Slatted co-extrusion WPC wall cladding

REPORT NUMBER

220523009SHF-008

TEST DATE(S)

2022-06-06 - 2022-08-09

ISSUE DATE

2022-08-17

PAGES

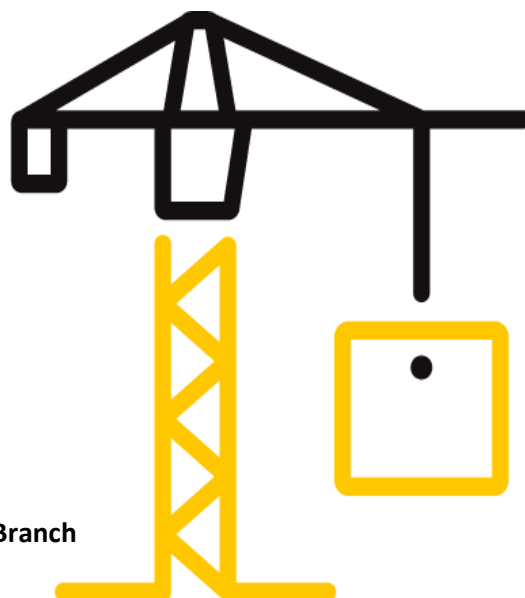
12

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Intertek Testing Services Shenzhen Ltd. Shanghai Fengxian Branch



Test Report

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Test Report

Issue Date: 2022-08-17 Intertek Report No. 220523009SHF-008
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	Slatted co-extrusion WPC wall cladding	Brand	/
Sample Description	Good Condition	Sample Amount	28 pcs
		Received Date	2022-06-06
Sample ID	Model	Specification	
S220532009SHF.032, 034~036, 038~041, 043	GW908	170X26MM	

Test Methods And Standards

Test Standard	EN 15534-5:2014 Section 4.5.1, 4.5.2, 4.5.4, 4.5.6 EN 15534-1:2014 Section 7.1.2.2, 8.3.1, 8.3.2, 8.3.3, 9.3, 9.4, Annex A EN 321:2001, EN 317:1993, EN 479:2018, ISO 16869:2008
Specification Standard	EN 15534-5:2014
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 Name: Sally Xie Title: Approver
Flora Fan Name: Flora Fan Title: Reviewer
Erin Huang Name: Erin Huang Title: Project Engineer

Test Report

Issue Date: 2022-08-17

Intertek Report No. 220523009SHF-008

Test Items, Method and Results:

EN 15534-5:2014 Composites made from cellulose-based materials and thermoplastics (usually called wood-polymer composites (WPC) or natural fibre composites (NFC)) Part 5: Specifications for cladding profiles and tiles

Test Items	Test Method	Test Results	Test requirements	Verdict
Falling mass impact resistance	EN 15534-5:2014 Section 4.5.1 EN 15534-1:2014 Section 7.1.2.2	Type: Cellular material profiles Max. Crack length (mm): No crack Max. Residual Indentation (mm): 0.25	No more than 1 test specimen out of 10 test specimens shall show a failure.	Pass

Note: The falling mass was 500g and the height was 1000mm.

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Test Items	Test Method	Test Results	Test requirements	Verdict
Flexural properties	EN 15534-5:2014 Section 4.5.2 EN 15534-1:2014 Annex A	Bending Strength: 31.8 MPa Modulus of elasticity: 3126 MPa Maximum load: Mean: 4292 N Min.: 4238 N Deflection at 250N: Mean: 0.79 mm Max.: 1.00 mm	Deflection under a load of 250 N Mean ≤ 5,0 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
Moisture resistance under cyclic test conditions	EN 15534-5:2014 Section 4.5.4 EN 15534-1:2014 Section 8.3.2 EN 321:2001	Original Bending Strength: 31.8 MPa After exposure, Mean Bending Strength: 30.0 MPa Deflection at 250N: Mean: 0.75 mm Max.: 0.86 mm	Deflection under a load of 250 N Mean $\leq$ 6,0 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
Swelling and water absorption (28 days immersion)	EN 15534-5:2014 Section 4.5.4 EN 15534-1:2014 Section 8.3.1 EN 317:1993	Mean Swelling: 0.55 % in thickness 0.06 % in width 0.16 % in length Max. Swelling: 0.74 % in thickness 0.12 % in width 0.21 % in length Water absorption: Mean: 1.16 % Max.: 1.24 %	Means swelling: ≤ 10 % in thickness ≤ 1,5 % in width ≤ 0,6 % in length Max. swelling: ≤ 12 % in thickness ≤ 2 % in width ≤ 1,2 % in length Water absorption: Mean ≤ 8 % Max. ≤ 10 %	Pass

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Test Items	Test Method	Test Results	Test requirements	Verdict
Boiling Test	EN 15534-5:2014 Section 4.5.4	Water absorption in weight:	Water absorption in weight:	Pass
	EN 15534-1:2014 Section 8.3.3	Mean: 1.36 %	Mean ≤ 7%	
		Max.: 1.54 %	Max. ≤ 9%	

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Test Items	Test Method	Test Results
Heat reversion	EN 15534-5:2014 Section 4.5.6 EN 15534-1:2014 Section 9.3 EN 479:2018	Test Temperature: 100°C Mean: -0.25 %

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Test Items	Test Method	Test Results
Heat build-up	EN 15534-5:2014 Section 4.5.6 EN 15534-1:2014 Section 9.4	Set temperature rise for use in horizontal position: 41 °C
		Actual temperature rise for black control specimen: 40.9 °C
		Temperature of test specimen: 35.9 °C
		Predicted heat build-up ΔT : -5.0 °C

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Test Items, Method and Results:

Test Item: Fungi resistance test

Test Method: ISO 16869:2008 Plastics - Assessment of the effectiveness of fungistatic compounds in plastics formulations

Test organisms:

Aspergillus niger ATCC 6275, *Chaetomium globosum* ATCC 6205, *Paecilomyces variotii* CBS 628.66, *Penicillium funiculosum* ATCC 9644, *Trichoderma longibrachiatum* ATCC 13631

Test condition(s): 21days, Humidity >90%RH, Temperature: 24°C

Rating evaluation:

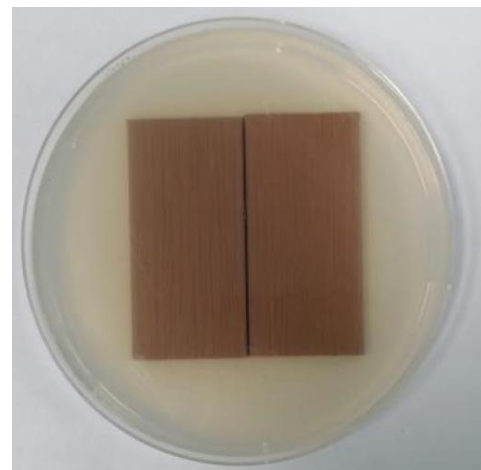
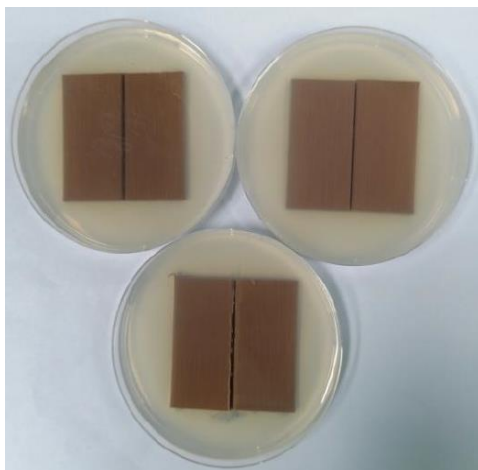
Rating	Growth	Interpretation
0	No growth	The material is resistant to fungal attack
1	Initial growth (compared with the rest of the agar surface)	The material is partially protected against fungal attack or generally not susceptible to such attack
2	Obvious growth and sporulation	The material is susceptible to fungal attack

Test result:

Evaluation	Observed Growth on specimens
Rating 0	No growth, the material is resistant to fungal attack

Note: Test item was subcontracted on accreditation by CNAS L0823.

Test Photos:



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Appendix A: Sample Received Photo



Front view



Back view



Section view

Revision:

NO.	Date	Changes
220523009SHF-008	2022-08-17	First issue