ZHEJIANG BAMTECH NEW MATERIAL TECHNOLOGY CO., LTD

TEST REPORT

SCOPE OF WORK
BAMTECH WOOD DECKING

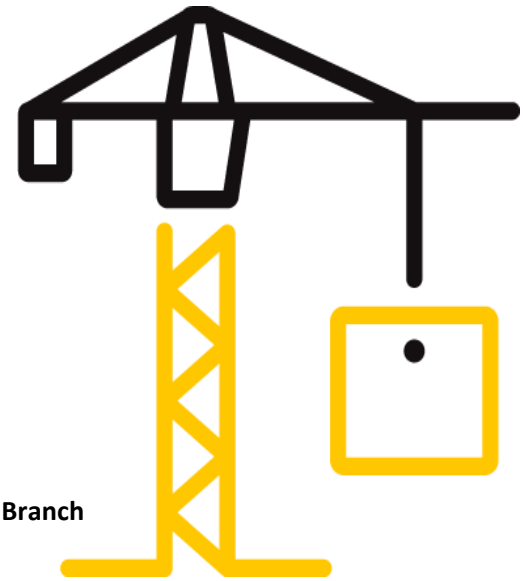
REPORT NUMBER
231218009SHF-001

TEST DATE(S)
2023-12-18 - 2024-04-01

ORIGINAL ISSUE DATE
2024-04-01

PAGES
9

DOCUMENT CONTROL NUMBER
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Intertek Testing Services Shenzhen Ltd. Shanghai Fengxian Branch

Test Report

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9.The report was digital signed by Shang Hai, Intertek Group plc, please using Adobe Acrobat Reader to verify the authenticity.

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Test Report

Original Issue Date: 2024-04-01 Intertek Report No. 231218009SHF-001

Applicant: ZHEJIANG BAMTECH NEW MATERIAL TECHNOLOGY CO., LTD

Address: Bamboo Technology Center and Industry Zone, Xiaofeng Town, Anji County, Zhejiang

Attn: Wenxuan Yang

Test Type: Performance test, samples provided by the applicant.

Product Information

Product Name	Model	Specification
BAMTECH WOOD DECKING	/	200*25
Sample ID	**Sample Amount**	**Sample Received Date**
S231218009SHF.002~003, 005~006	35 pcs	2023-12-13
Sample Description		
200mm×25mm		

Test Methods And Standards

Test Standard	EN 15534-4:2014 Section 4.5.2, 4.5.5 EN 15534-1:2014 Section 8.1, 8.3.1, 8.3.3, Annex A EN ISO 4892-2:2013 cycle 1
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 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

INTERTEK TESTING SERVICES SHENZHEN LTD. SHANGHAI FENGXIAN BRANCH 检验检测专用章

Name: Daniel Zhang Name: Erin Huang

Title: Reviewer Title: Project Engineer

Test Report

Original Issue Date: 2024-04-01 Intertek Report No. 231218009SHF-001

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
Flexural properties	EN 15534-4:2014 Section 4.5.2 EN 15534-1:2014 Annex A	Bending Strength: 18.7 MPa Modulus of elasiticity: 1079 MPa Maximum load: Mean: 5009 N Min.: 4029 N Deflection at 500N: Mean: 1.72 mm Max.: 2.22 mm	Flexural properties -F'max: Mean ≥ 3300 N Min. ≥ 3000 N -Deflection under a load of 500 N: Mean ≤ 2,0 mm Max. ≤ 2,5 mm	Pass

Note:

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

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Test Items, Method and Results:

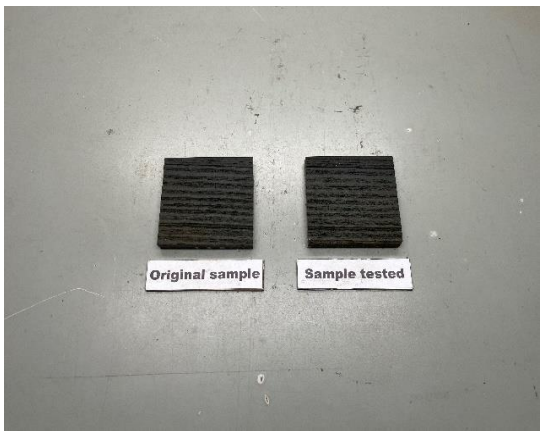
EN 15534-4:2014 Composites made from cellulose-based materials and thermoplastics (usually called wood-polymer composites (WPC) or natural fibre composites (NFC)) Part 4: Specifications for decking profiles and tiles

Test Items	Test Method	Test Results	Test requirements	Verdict
Resistance to artificial weathering	EN 15534-4:2014 Section 4.5.5 EN 15534-1:2014 Section 8.1 EN ISO 4892-2:2013 cycle 1	After 500h exposure: △L*= 0.72 △a*= 0.21 △b*= 0.81 △E*= 1.27 Grey Sale= 4	△L*,△a* and △b* shall be delared	N/A
Resistance to artificial weathering	EN 15534-4:2014 Section 4.5.5 EN 15534-1:2014 Section 8.1 EN ISO 4892-2:2013 cycle 1	After 1000h exposure: △L*= 1.00 △a*= 0.55 △b*= 0.74 △E*= 1.47 Grey Sale= 4	△L*,△a* and △b* shall be delared	N/A
Resistance to artificial weathering	EN 15534-4:2014 Section 4.5.5 EN 15534-1:2014 Section 8.1 EN ISO 4892-2:2013 cycle 1	After 1500h exposure: △L*= -0.93 △a*= 0.08 △b*= 0.72 △E*= 1.24 Grey Sale= 4-5	△L*,△a* and △b* shall be delared	N/A
Resistance to artificial weathering	EN 15534-4:2014 Section 4.5.5 EN 15534-1:2014 Section 8.1 EN ISO 4892-2:2013 cycle 1	After 2000h exposure: △L*= 0.74 △a*= 0.30 △b*= -0.64 △E*= 1.23 Grey Sale= 4-5	△L*,△a* and △b* shall be delared	N/A

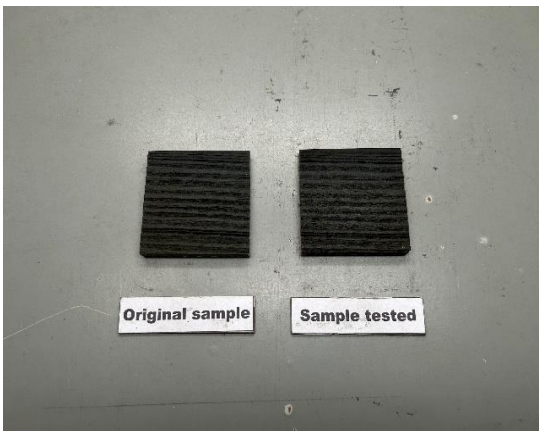
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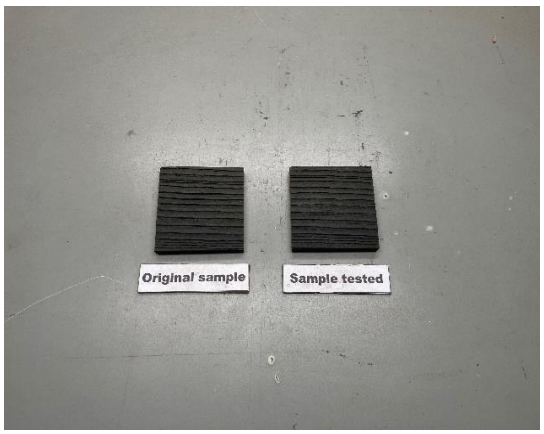
Test Photos:



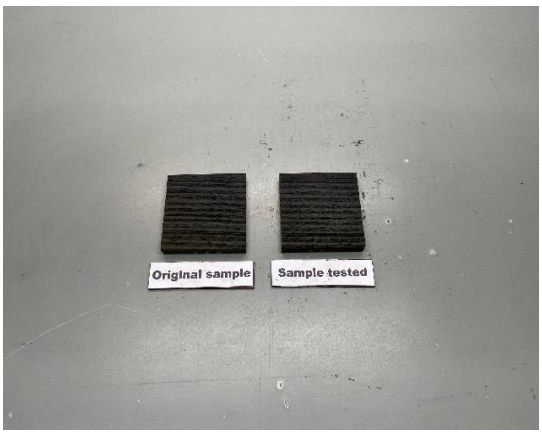
After 500h exposure



After 1000h exposure



After 1500h exposure



After 2000h exposure

Test Report

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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
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: 0.59 % in thickness 0.12 % in width 0.11 % in length Max. Swelling: 0.83 % in thickness 0.13 % in width 0.14 % in length Water absorption: Mean: 2.64 % Max.: 2.77 %	Means swelling: ≤ 4 % in thickness ≤ 0,8 % in width ≤ 0,4 % in length Max. swelling: ≤ 5 % in thickness ≤ 1,2 % in width ≤ 0,6 % in length Water absorption: Mean≤7 % Max.≤9 %	Pass

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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
Boiling Test	EN 15534-4:2014 Section 4.5.5 EN 15534-1:2014 Section 8.3.3	Water absorption in weight: Mean: 1.91 % Max.: 2.12 %	Water absorption in weight: Mean ≤ 7% Max. ≤ 9%	Pass

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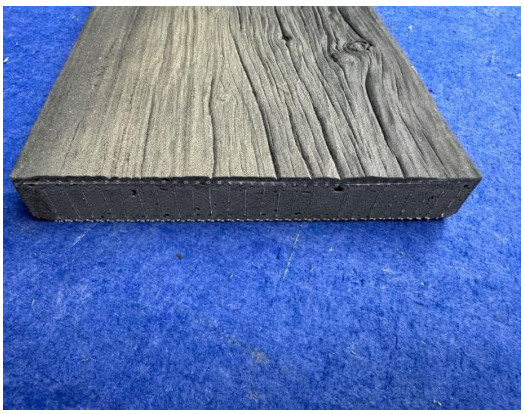
Appendix A: Sample Received Photo



Front view



Back view



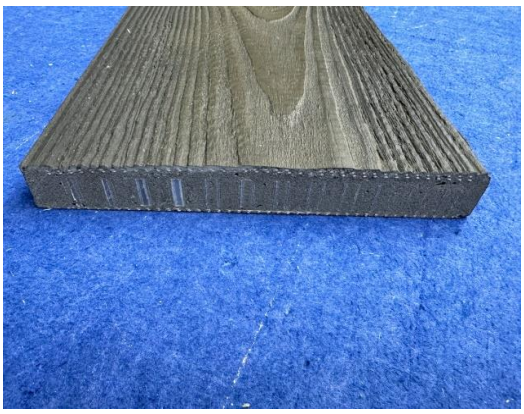
Section view



Resistance to artificial weathering - Front view



Resistance to artificial weathering - Back view



Resistance to artificial weathering - Section view

Revision:

NO.	Date	Changes
231218009SHF-001	2024-04-01	First issue