ZHEJIANG KEJIE NEW MATERIAL CO., LTD

TEST REPORT

SCOPE OF WORK
WPC

REPORT NUMBER
191115007SHF-001

TEST DATE(S)
2019-11-15 - 2019-12-09

ISSUE DATE
2019-12-09

PAGES
8

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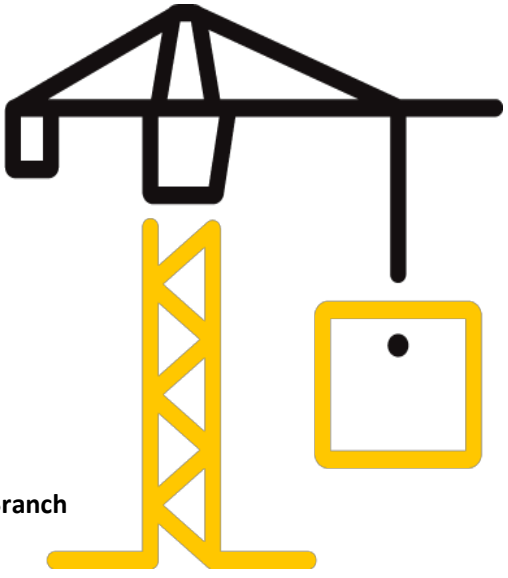

Intertek Testing Services Shenzhen Ltd. Shanghai Fengxian Branch

Test Report

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Intertek Testing Services Shenzhen Ltd. Shanghai Fengxian Branch
Plant 5, No. 6958 Daye Road, Fengxian District, Shanghai, China
Tel: 021-61136116 Fax: 021-61189921
Website: www.intertek.com

Test Report

Issue Date: 2019-12-09 Intertek Report No. 191115007SHF-001

Applicant: ZHEJIANG KEJIE NEW MATERIAL CO., LTD

Address: NO.117 XIANXIA ROAD, JIANSHAN INDUSTRIAL ZONE, HAINING CITY, ZHEJIANG, PROVINCE, CHINA

Attn: Chenguang Wang

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

Product Information

Product Name	WPC	**Brand**	/
Sample Description	Good condition	**Sample Amount**	5 PCS
		Received Date	2019-11-14

Sample ID	**Model**	**Specification**
S191115007SHF.001~004	XFD	150×25

Test Methods And Standards

Test Standard	ASTM D7031-11(2019) section 5.5, section 5.17, section 5.20, ASTM D6109-19 Method A, ASTM D4060-19, EN 15534-1:2014 Section 8.3.3
Specification Standard	EN 15534-4: 2014 Section 4.5.5
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

Name: Mason Wang Name: Jackie Zhou

Title: Reviewer Title: Project Engineer

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Test Items, Method and Results:

Test Item: Bending
Test Method: ASTM D7031-11(2019) section 5.5 & ASTM D6109-19 Method A
Conditioning: Condition the test specimens at (23±2°C) and (50±5)% RH for not less than 40 h
Test Speed: 11.8 mm/min
Test Span: 500 mm
Radius of Supports and Loading Noses: 15 mm

Results:

Test Item	Results
Modulus of rupture	Average: 38.8 MPa
Modulus of elasticity	Average: 4570 MPa

Note:
1. The test face was wood grain surface. Refer to sample received photo in Appendix A.

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Test Items, Method and Results:

Test Item: Freeze-Thaw Resistance

Test Method: ASTM D7031-11(2019) section 5.20 & ASTM D6109-19 Method A

Test Condition: A total of three cycles of water submersion, freezing, and thawing
Water submersion: sub-merged underwater for 24h
Freezing: in a freezer set at -20°F (-29°C) for 24 h
Thawing: returned to room temperature for a period of 24 h

Test Speed: 11.8 mm/min

Test Span: 500 mm

Radius of Supports and Loading Noses: 15 mm

Results:

Test Item	Results
Modulus of rupture	Average: 40.0 Mpa Rate: 3.1%
Modulus of elasticity	Average: 4375 Mpa Rate: -4.3%
Appearance	No chaping, bubble or peeling after freeze-thaw cycles.

Note:

1. The test face was wood grain surface. Refer to sample received photo in Appendix A.

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Total Quality. Assured.

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Test Items, Method and Results:

Test Item: Abrasion resistance
Test Method: ASTM D7031-11(2019) section 5.17 & ASTM D4060-19
Conditioning: Condition the test specimens at (23±2°C) and (50±5)% RH for at least 24h
Abrasive wheels: CS-17
Test Load: 1000 g per wheel
Revolutions: 1000 r

Test Items	Test Results
Abrasion resistance	Wear Index: 108.8

Note:

1. Wear Index: 1000 times the loss in weight in milligrams per cycle.
2. The test face was wood grain surface. Refer to sample received photo in Appendix A.

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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 15534-1:2014 Section 8.3.3 EN 15534-4: 2014 Section 4.5.5	Water absorption in weight: Mean: 0.43 % Max.: 0.48 %	Water absorption in weight: Mean ≤ 7% Max. ≤9%	Pass

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Appendix A: Sample Received Photo

Front View(Test Face)

Back View

Section View

Revision:

NO.	Date	Changes	Author	Reviewer
191115007SHF-001	2019-12-09	First issue	Jackie Zhou	Mason Wang