Jiangsu Yunjing New Materials Co.,Ltd

TEST REPORT

SCOPE OF WORK
IWF

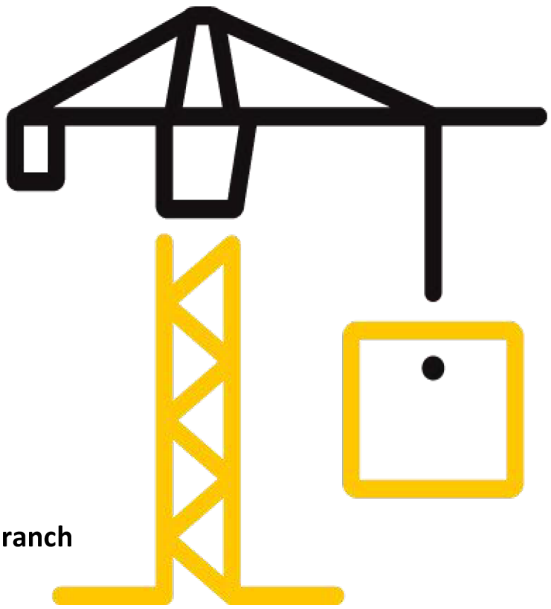
REPORT NUMBER
230104002SHF-002

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

ISSUE DATE
2023-01-16

PAGES
14

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Intertek Testing Services Shenzhen Ltd. Shanghai Fengxian Branch

Test Report

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Test Report

Issue Date: 2023-01-16 Intertek Report No. 230104002SHF-002
Applicant: Jiangsu Yunjing New Materials Co.,Ltd
Address: No.2 Qingfeng road, Yunyang street, Danyang city, Jiangsu, China, 212399
Attn: Zhixiang Feng
Manufacturer: Jiangsu Yunjing New Materials Co.,Ltd
Address: No.2 Qingfeng road, Yunyang street, Danyang city, Jiangsu, China, 212399
Test Type: Performance test, samples provided by the applicant.

Product Information

Product Name	IWF	**Brand**	Pharos Floor
Sample Description	Good Condition	**Sample Amount**	20pcs
		Received Date	2022-12-14

Sample ID	Model	Specification
S230104002SHF.011~020, 022	2018	1218x195x8mm

Test Methods And Standards

Test Standard	ASTM D1037-12(2020) Section 9, EN 319:1993, In house method, EN 16094:2012 Procedure A, NALFA LF 01-2019 Section 3.2, 3.5, 3.6, 3.10, ASTM F2199-20 and client's requirement
Specification Standard	/
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: Sally Xie Name: Daniel Zhang
Title: Reviewer Title: Project Engineer

Test Report

Issue Date: 2023-01-16 Intertek Report No. 230104002SHF-002

Test Items, Method and Results:

Test Item: Static Bending
Test Method: ASTM D1037-12(2020), Section 9
Conditioning: Dry "As Received"
Test Parameters:
Test Speed： 7.68 mm/min
Test Span: 192 mm

Test Results:

Test Item		Results
Modulus of rupture	parallel	Average: 43.6 MPa
Modulus of elasticity	parallel	Average: 12720 MPa

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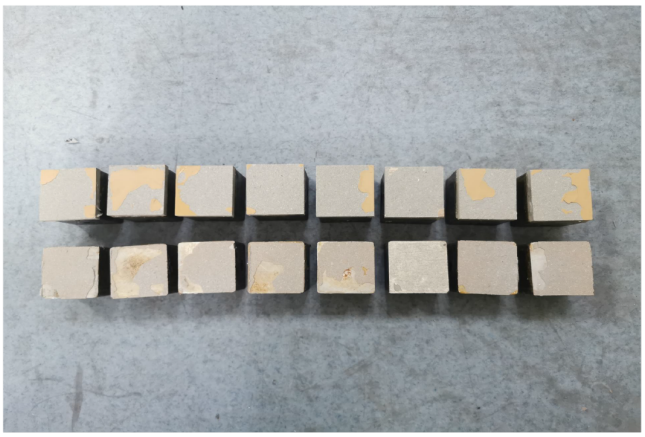
Test Items, Method and Results:

Test Item: Tensile strength-perpendicular to the plane of the board
Test Method: EN 319:1993
Conditioning: Conditioned at (23±2)°C and (50±5)% relative humidity for 48 hours
Test Parameters:
Specimen size: 50mm × 50 mm (length × width)
Adhesive: Hot melt
Test speed: 3 mm/min

Test Result:

Tensile strength	Failure model
Mean: 3.45 N/mm^2	Fracture within back surface

Tested photo of failure model



Test Report

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Test Items, Method and Results:

Test Item: Density

Test Method: In house method (Immersion method)

Conditioning: Condition the test specimens at (23±2)°C and (50±5)% relative humidity for at least 40h

Test Condition:

Water Temperature: 23.0 °C

Test Result

Mean: 1.434 g/cm^3

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Test Items, Method and Results:

Test Item: Micro-scratch resistance
Test Method: EN 16094:2012, Procedure A
Conditioning: Condition the test specimens at (23 ± 2)°C and (50 ± 5)% relative humidity for at least 1 week
Test Condition:

Scrub material:	SB 7447 (very fine)
Holder for scrub material:	Version 2, 6N
Speed factor:	1
Number of rubs:	80
Glossmeter geometry:	85 °

Test Result:

Specimen	|Gloss change| (%)
1	20.3
2	17.2
3	14.3
Average value	18
Classification	MSR-A2

Classification of mean values of gloss change as per EN 16094 procedure A

Micro-Scratch resistance class according to procedure A	|Change of gloss|
MSR-A1	≤ 10%
MSR-A2	> 10% to ≤ 30%
MSR-A3	> 30% to ≤ 50%
MSR-A4	> 50% to ≤ 70%
MSR-A5	> 70%

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Test Items, Method and Results:

NALFA LF 01-2019: Laminate Flooring Specifications and Test Methods

Test items	Test Methods	Test Results
Thickness Swell	NALFA LF 01-2019 Section 3.2	Mean: 1.1 %

Note:

1. Specimens were submerged under the water for 24 hours.

Performance properties-minimum performance values				
Usage Level	Residential	Light Commercial	Commercial	Heavy Commercial
Property				
Thickness Swell	≤18 %	≤16 %	≤16 %	≤12 %

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Total Quality. Assured.

Test Report

Issue Date: 2023-01-16 Intertek Report No. 230104002SHF-002

Test Items, Method and Results:

NALFA LF 01-2019: Laminate Flooring Specifications and Test Methods

Test items	Test Methods	Test Results
Large Ball Impact Resistance	NALFA LF 01-2019 Section 3.5	Drop height: 1450 mm Observation: Not crack

Note:

1. The ball was 224g and 38mm in diameter.

Performance properties-minimum performance values				
Usage Level	Residential	Light Commercial	Commercial	Heavy Commercial
Property				
Large Ball Impact Resistance	>800 mm	>1000 mm	>1200 mm	>1400 mm

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Test Report

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Test Items, Method and Results:

NALFA LF 01-2019: Laminate Flooring Specifications and Test Methods

Test items	Test Methods	Test Results
Small Ball Impact Resistance	NALFA LF 01-2019 Section 3.6	Drop height: 525 mm Observation: Not crack

Note:

1. The impact dart was 25g, tipped with a 5 mm diameter steel ball.

Performance properties-minimum performance values				
Usage Level	Residential	Light Commercial	Commercial	Heavy Commercial
Property				
Small Ball Impact Resistance	>200 mm	>200 mm	>350 mm	>500 mm

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Total Quality. Assured.

Test Report

Issue Date: 2023-01-16 Intertek Report No. 230104002SHF-002

Test Items, Method and Results:

NALFA LF 01-2019: Laminate Flooring Specifications and Test Methods

Test items	Test Methods	Test Results
Surface Bonding	NALFA LF 01-2019 Section 3.10	Mean= 1.29 N/mm^2

Performance properties-minimum performance values				
Usage Level	Residential	Light Commercial	Commercial	Heavy Commercial
Property				
Surface Bonding	1 N/mm^2	1.25 N/mm^2	1.25 N/mm^2	1.5 N/mm^2

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Total Quality. Assured.

Test Report

Issue Date: 2023-01-16 Intertek Report No. 230104002SHF-002

Test Items, Method and Results:

Test Item: Dimensional stability
Test Method: ASTM F2199-20
Conditioning:
- Temperature: 23 °C
- Relative humidity: 50 %
- Duration: 24 h
- Measure the initial length

Test Condition:
- Temperature: 80 °C
- Duration: 6 h

Reconditioning:
- Temperature: 23 °C
- Relative humidity: 50 %
- Duration: 24 h
- Measure the final length

Test Result:

Specimen	Dimensional stability (%)	
	Length direction/Machine direction	Width direction/Across machine direction
1	-0.08	-0.08
2	-0.08	-0.07
3	-0.09	-0.08
Average	-0.08	-0.08
Max.	-0.09	-0.08

Note:
1. Dimensional stability = (final length - initial length)×100/initial length
A negative value indicates shrinkage, and a positive value indicates expansion

Test Report

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Test Items, Method and Results:

Test Item: Dimensional stability

Test Method: ASTM F2199-20 and client's requirement

Conditioning:

Temperature:	23	°C
Relative humidity:	50	%
Duration:	24	h

Measure the initial length

Test Condition:

Temperature:	24	°C
Relative humidity:	85	%
Duration:	24	h

Reconditioning:

Temperature:	23	°C
Relative humidity:	50	%
Duration:	24	h

Measure the final length

Test Result:

Specimen	Dimensional stability (%)	
	Length direction/Machine direction	Width direction/Across machine direction
1	0.00	0.02
2	0.00	0.02
3	0.01	0.01
Average	0.00	0.02
Max.	0.01	0.02

Note:

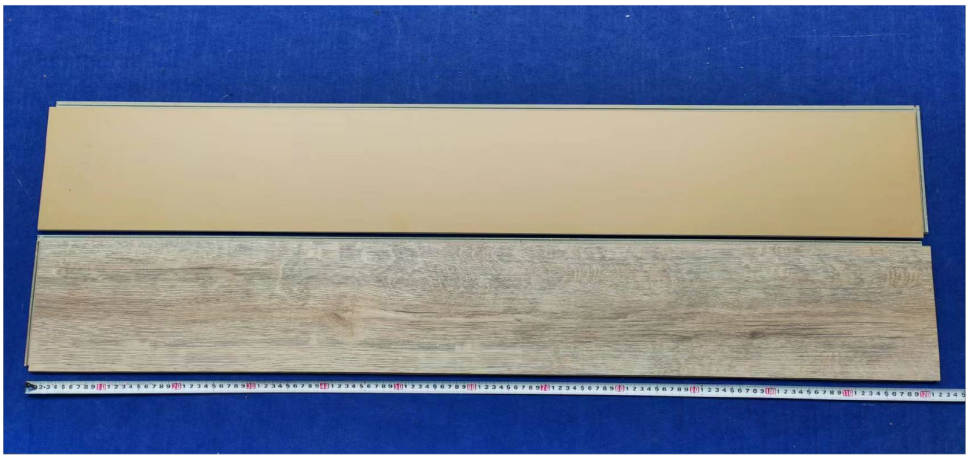
1. Dimensional stability = (final length - initial length)×100/initial length

A negative value indicates shrinkage, and a positive value indicates expansion

Test Report

Issue Date: 2023-01-16 Intertek Report No. 230104002SHF-002

Appendix A: Sample Received Photo



Revision:

NO.	Date	Changes
230104002SHF-002	2023-01-16	First issue