

Test Report

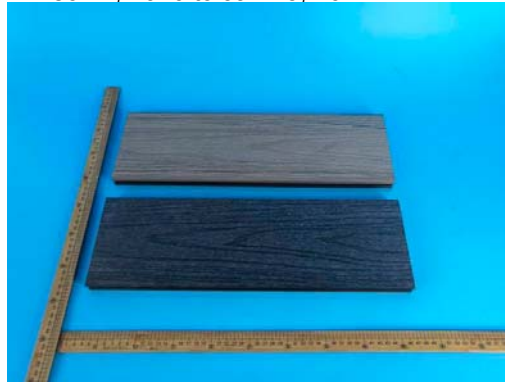
Number: GZHH00391037

Applicant: HUANGSHAN HUASU NEW MATERIAL SCIENCE
& TECHNOLOGY CO LTD
CHENGBEI INDUSTRIAL ZONE, HUIZHOU
DISTRICT, HUANGSHAN CITY, ANHUI
PROVINCE, CHINA.

Date: Feb 01, 2021

Sample Description:

One (1) set of submitted sample said to be :
Item Name : **Co-Extrusion Composite Decking**
Item No. : **138S23-K**
Date Sample Received : Dec 22, 2020
Testing Period : Dec 22, 2020 to Jan 25, 2021



Tests conducted:

As requested by the applicant, refer to attached page(s) for details.

To be continued



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Conclusion:

<u>Tested sample</u>	<u>Test Item</u>	<u>Result</u>
Submitted sample	Inclination plan test - As per EN 15534-4: 2014 and EN 15534-1: 2014+A1: 2017 Section 6.4.3	Pass
	Falling mass impact resistance-solid profiles - As per EN 15534-4: 2014 and EN 15534-1: 2014+A1: 2017 Section 7.1.2.1	Pass
	Flexural properties - As per EN 15534-4: 2014 and EN 15534-1: 2014+A1: 2017 Section 7.3.2 and Annex A	Pass
	Tensile strength perpendicular to the plane of the board - As per EN 319: 1993	See test conducted
	Resistance to staining - As per EN 438-2:2016 Section 26	See test conducted
	Resistance to scratching test - As per EN 438-2:2016 Section 25	See test conducted

Authorized by:
For Intertek Testing Services Shenzhen Ltd.
Guangzhou Branch, Hardlines


Victor T.J. Wang
Assistant General Manager



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Tests Conducted

1 Inclination plan test

As per EN 15534-4: 2014 and EN 15534-1: 2014+A1: 2017 Section 6.4.3, the submitted sample was subjected to the following tests:

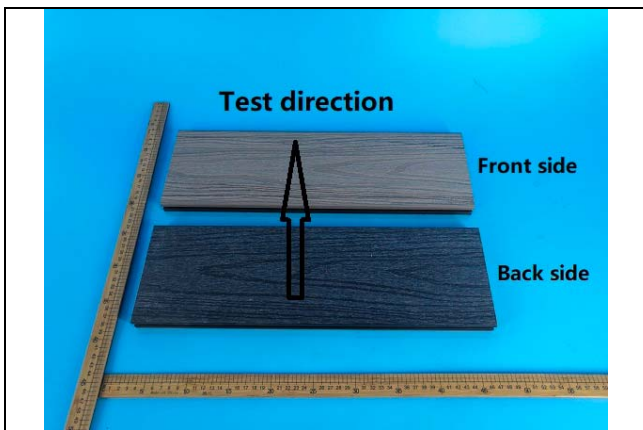
Sample description: Co-Extrusion Composite Decking.

Initial inspection: No any damage was found.

Executive summary:

Test item	Test methods	Test result	Conclusion
Inclination plan test	Test method: As per EN 15534-4: 2014 and EN 15534-1: 2014+A1: 2017 Section 6.4.3 Specimen size: 1000 mm×141 mm ×22.8 mm Test liquid: 1g/L Neutral wetting agent Test direction: Width direction EN 15534-4: 2014 Requirement: Class C (≥24°)	Front size: Class C: ≥26° Back size: Class C: 25°	Pass

Photo for reference:





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Tests Conducted

2 Falling mass impact resistance- solid profiles

As per EN 15534-4: 2014 and EN 15534-1: 2014+A1: 2017 Section 7.1.2.1, the submitted sample was subjected to the following tests:

Sample description: Co-Extrusion Composite Decking.

Initial inspection: No any damage was found.

Executive summary:

Test item	Test methods	Test result	Conclusion
Falling mass impact resistance-solid profiles	Test method: As per EN 15534-4: 2014 and EN 15534-1: 2014+A1: 2017 Section 7.1.2.1 Specimen: 300×141×22.8mm Weight of steel ball: 1000g Diameter of steel ball: 50mm Falling height: 700mm Span: 200mm EN 15534-4: 2014 Requirement: Solid profiles: None of 10 test specimens shall show a failure with depth of residual indentation ≥0.5mm. In case of one failure, 10 additional test specimens shall be tested and no failure with a depth of residual indentation ≥0.5mm shall occur.	No crack; Residual indentation: < 0.5mm	Pass



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3 Flexural properties

As per EN 15534-4: 2014 and EN 15534-1: 2014+A1: 2017 Section 7.3.2 and Annex A, the submitted sample was subjected to the following tests:

Sample description: Co-Extrusion Composite Decking.

Initial inspection: No any damage was found.

Executive summary:

Test item	Test methods	Test result	Conclusion
Flexural properties	<p>Test method: As per EN 15534-4: 2014 and EN 15534-1: 2014+A1: 2017 Section 7.3.2 and Annex A</p> <p>Profile type: solid profiles</p> <p>Specimen size: 450 mm×141 mm ×22.8 mm</p> <p>Testing speed: 10 mm/min</p> <p>Span: 350 mm</p> <p>Conditioning and test conditions: 23±2°C, 50±5%RH.</p> <p>EN 15534-4: 2014 Requirement:</p> <p>F' max ≥ 3300N (arithmetic mean value)</p> <p>F' max ≥ 3000N (individual values)</p> <p>Deflection under a load of 500 N ≤ 2.0mm (arithmetic mean value)</p> <p>Deflection under a load of 500 N ≤ 2.5mm (individual values)</p>	<p>F' max (arithmetic mean value): 5289N</p> <p>F' max (minimum individual values): 5207N</p> <p>Deflection under a load of 500 N (arithmetic mean value): 1.80mm</p> <p>Deflection under a load of 500 N (maximum individual values): 1.84mm</p>	Pass



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4 Tensile strength perpendicular to the plane of the board

As per EN 319: 1993, the submitted sample was subjected to the following tests:

Sample description: Co-Extrusion Composite Decking.

Initial inspection: No any damage was found.

Executive summary:

Test item	Test methods	Test result
Tensile strength perpendicular to the plane of the board	Test method: As per EN 319: 1993 Specimen size: 50 mm×50 mm ×22.8 mm Testing speed: 10 mm/min	> 0.66 N/mm ² (See note)

Note:

1.The test could not be conducted for the specimen could not be separated.

2.Type of failure: Cohesive failure within the adhesive and adhesion to the facing.



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5 Resistance to staining

As per EN 438-2:2016 Section 26, the submitted sample was subjected to the following tests:

Sample description: Co-Extrusion Composite Decking.

Initial inspection: No any damage was found.

Executive summary

Staining agent	Test condition	Test result	
		Cover	Uncover
Acetone (AR)	Apply agent at 23°C, contact for 16h	Rating 5	Rating 5
Coffee (Nestlé®, 120g of coffee per liter of water)	Apply agent at 80°C, contact for 16h	Rating 5	Rating 5
Sodium hydroxide (AR, 25% solution)	Apply agent at 23°C, contact for 10min	Rating 5	Rating 5
Hydrogen peroxide (AR, 30% solution)		Rating 5	Rating 5
Shoe polish (Red Bird®)		Rating 5	Rating 5

Expression of results:

Rating	Description
5	No visible change
4	Slight change of gloss and/or colour, only visible at certain viewing angles
3	Moderate change of gloss and/or colour
2	Marked change of gloss and/or colour
1	Surface distortion and/or blistering



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Tests Conducted

6 Resistance to scratching test

As per EN 438-2:2016 Section 25, the submitted sample was subjected to the following tests:

Sample description: Co-Extrusion Composite Decking.

Initial inspection: No any damage was found.

Executive summary

Test item	Test methods	Test result
Resistance to scratching test	Test method: As per EN 438-2:2016 Section 25 Number of tested specimen: 3 pcs Rotational frequency: 5±1r/min Point radius: 0.09mm Conditioning: 23±2°C, 50±5%RH, 72h	Rating 2 (See note)

Expression of results:

Rating scale	Discontinuous scratches, or faint superficial marks, or no visible marks	≥90% continuous double circle of scratch marks clearly visible
Rating 5	6 N	> 6 N
Rating 4	4 N	6 N
Rating 3	2 N	4 N
Rating 2	1 N	2 N
Rating 1	-	1 N

Note: The result was for reference only due to the uneven specimen surface.

End of report

The statements of conformity reported have considered the decision rule agreed, namely that Intertek have taken account of measurement uncertainty as calculated by Intertek, and applied according to ILAC-G8/09:2019 (Non-binary acceptance based on guard band w = U) except designation from the customer, regulation or test specification. This decision rule only applies to the numeric test results.

The sample(s) and sample information hereto are provided by the client who shall be solely responsible for the authenticity and integrity thereof. The results shown in this report relate only to the sample(s) tested. It is not intended to be a recommendation for any particular course of action. Intertek does not accept a duty of care or any other responsibility to any person other than the Client in respect of this report and only accepts liability to the Client insofar as is expressly contained in the terms and conditions governing Intertek's provision of services to you. Intertek makes no warranties or representations either express or implied with respect to this report save as provided for in those terms and conditions. We have aimed to conduct the Review on a diligent and careful basis and we do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise, except in the event of our gross negligence or wilful misconduct. This report shall not be reproduced unless with prior written approval from Intertek Testing Services Shenzhen Limited, Guangzhou Branch. The testing data and result issued by this report are just for scientific research, teaching, internal quality control, product research and development etc. on reference only in the territory of the People's Republic of China.

