Test Report

Report Number:140925015SHJ-BP-1

Applicant Name: YIXING HUALONG NEW MATERIAL LUMBER CO., LTD
Applicant Address: The south develop area of Xinjian town, Yixing City, Jiangsu China
Attn: Jichun Yu

Original Report Date: December 01, 2014

Sample Description:

Product: Wood Plastic Composite
Model: 140*25 mm
Samples Quantity: 38 pieces
Sample ID: S140925015SHJ-001~038
Date Received: 2014-09-25
Date Test Conducted: 2014-09-25~2014-11-15

Tests Conducted:

Test Methods: BS EN 15534-4:2014

Conclusion:

For details refer to attached page(s).
The conclusions of this test report may not be used as part of the requirements for Intertek product certification. Authority to Mark must be issued for a product to become certified.

Should you have any queries about the test report, please contact:

Approved by:	**Checked by:**	**Prepared by:**
Sun Sun	Daniel Zhang	Torres Qi
Assistant Manager	Senior Project Engineer	Testing Engineer

Test Items, Method and Results:

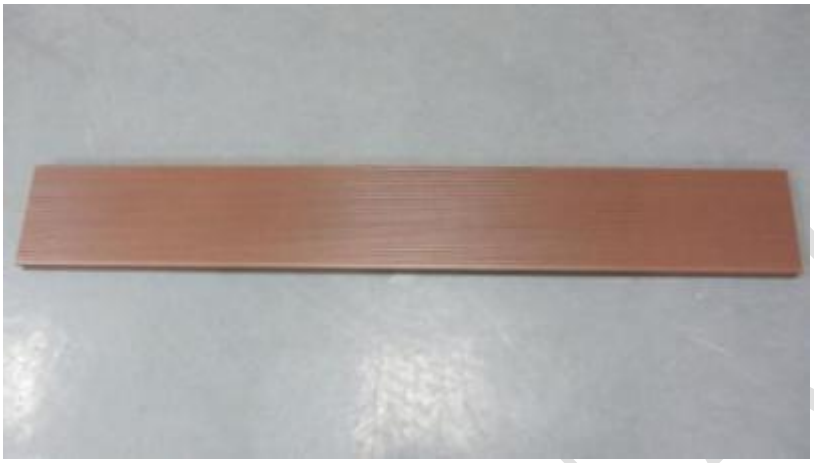
Test Items	Test requirements	Test Results	Verdict
Appearance	/	No visible colour difference compared to the control sample, no crack, blister and some other visible defects	/
Linear mass	Individual values ≥ 95% declared value by the manufacturer Declared value: 4200~4350 g/m	Mean value: 4240 g/m Min. value: 4216 g/m	Pass
Thickness, width and length	Declared value Thickness: 25±0.5 mm Width: 140±1 mm Length: 1000±2 mm	Thickness: 24.91 mm Width: 139.70 mm Length: 1001 mm	Pass
Deviation from straightness	Declared value: ≤0.8 mm	Max value: 0.5 mm	Pass
Cupping	Declared value: ≤0.5 mm	Max value: 0.4 mm	Pass
Pendulum test	Pendulum value≥ 36	Mean value: 80 Min. value: 78	Pass
Flexural properties [1]	Flexural properties - F'max ≥ 3300 N (arithmetic mean value) - F'max ≥ 3000 N (individual values) - Deflection under a load of 500 N ≤ 2,0 mm (arithmetic mean value) - Deflection under a load of 500 N ≤ 2,5 mm (individual values)	Bending Strength: 28.0 MPa Modulus of elasticity: 3.29 GPa Mean value of maximum load: 4660 N Minimum value of maximum load: 4333 N Deflection at 500 N Mean value: 1.0 mm Maximum value: 1.1 mm	Pass
Boiling test	1) Mean value of water absorption ≤ 7 % in weight 2) Individual values of water absorption ≤ 9 % in weight	Water absorption Mean value: 1.0% Max. value: 1.1%	Pass

Test Items	Test requirements	Test Results	Verdict
Linear thermal expansion coefficient [2]	≤ 50 · 10^{-6} K^{-1}	Mean value: 37.9×10^{-6} 1/°C	Pass
Heat reversion	/	Mean value: -0.05%	/
Creep behaviour [1]	Known span in use ΔS ≤ 10 mm for arithmetic mean value ΔS ≤ 13 mm for individual values ΔSr ≤ 5 mm for arithmetic mean value	Mean value: ΔS=1.81 mm ΔSr=1.26 mm Max value: ΔS=1.97m	Pass
Moisture resistance under cyclic test conditions [1]	Mean of decrease of bending strength ≤ 20 % - Individual decrease of bending strength ≤ 30 %	Bending strength Original sample: 28.0 MPa After moisture condition: 25.5 MPa Mean decrease: 9% Max. individual decrease: 22%	Pass
Swelling and water absorption (24 hours immersion)	1) Means swelling ≤ 4 % in thickness ≤ 0,8 % in width ≤ 0,4 % in length 2) Individual swelling ≤ 5 % in thickness ≤ 1,2 % in width ≤ 0,6 % in length 3) Mean water absorption ≤ 7 % in weight 4) Individual water absorption ≤ 9 % in weight	Means swelling 0.1% in thickness 0.02% in width 0.06% in length Max. value 0.2% in thickness 0.03% in width 0.06% in length Water absorption Mean value: 0.4% Max. value: 0.4%	Pass
Heat build-up	/	Mean value: 39.1°C	/
Resistance to indentation	/	Brinell hardness: 162 N/mm^2 Rate of elastic recovery: 26%	/

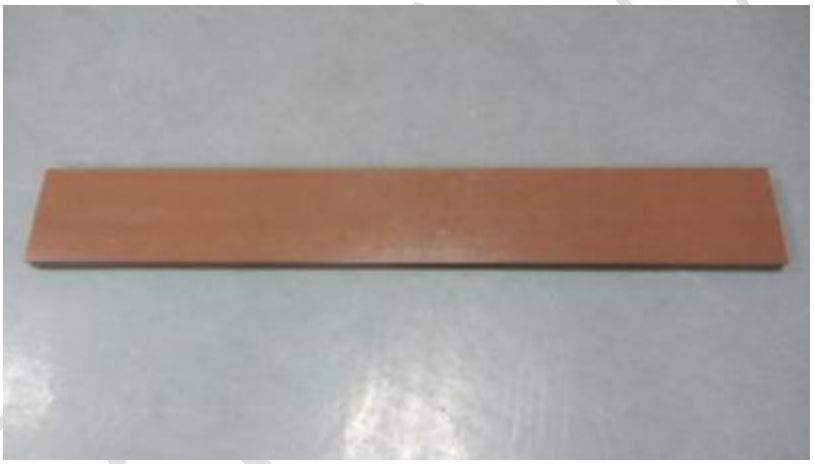
Test Items	Test requirements	Test Results	Verdict
Resistance against discolouring micro-fungi [3]	Rating 0, No growth Rating 1, Initial growth (compared with the rest of the agar surface) Rating 2, Obvious growth and sporulation	Rating 0, No growth	/

Note:
1. The test span was 350 mm offered by applicant
2. This test was conducted at the external approved facility, located at Shanghai
3. This test was conducted at the external approved facility, located at Guangdong
4. Sample photo of Pendulum test was shown in Appendix B

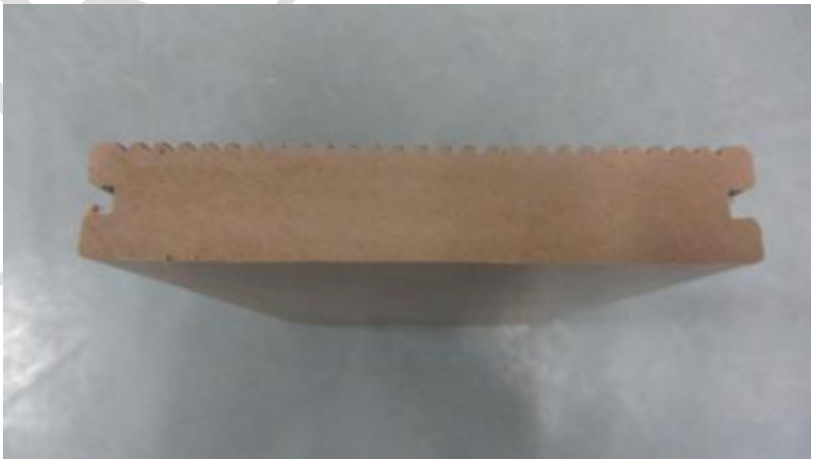
Appendix A：Received sample



Front view



Back view



Section view

Appendix B：Sample Photos

Sample for pendulum test

Appearance compared to control sample