

Test Report

Report Number:151207001SHF-BP-1

Original Report Date: January 20, 2016

Sample Description:

Product: WPC
Model: **Timco** wood hollow board 146x22mm
Samples Quantity: 2000mm length, 25 pieces
Sample ID: S151207001SHF-001~025
Date Received: 2015-11-30
Date Test Conducted: 2015-12-08~2016-01-15

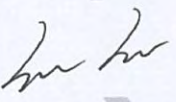
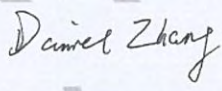
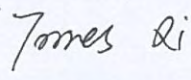
Tests Conducted:

Test Methods: Please see the next page(s)

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 Operation Manager	Daniel Zhang Senior Project Engineer	Torres Qi Testing Engineer

Test Items, Method and Results:

Test Items	Test Method	Test Results	Test Requirements	Verdict
Flexural properties ¹	EN 15534-1:2014 ANNEX A	Bending Strength: 33.4 MPa Modulus of elasticity: 3695 MPa Mean value of maximum load: 5159 N Minimum value of maximum load: 4934 N Deflection at 500 N Mean value: 0.99 mm Maximum value: 1.06 mm	Flexural properties - F'max \geq 3300 N (arithmetic mean value) - F'max \geq 3000 N (individual values) - Deflection under a load of 500 N \leq 2,0 mm (arithmetic mean value) - Deflection under a load of 500 N \leq 2,5 mm (individual values)	Pass
Creep behaviour ¹	EN 15534-1:2014 7.4.1	Mean value: $\Delta S=1.54$ mm $\Delta S_r=1.44$ mm Max value: $\Delta S=1.79$ mm	Known span in use $\Delta S \leq 10$ mm for arithmetic mean value $\Delta S \leq 13$ mm for individual values $\Delta S_r \leq 5$ mm for arithmetic mean value	Pass
Impact resistance	EN 15534-1:2014 7.1.1 EN ISO 179-1:2010	4.4 kJ/m ²	/	/
Boiling test	EN 15534-1:2014 8.3.3	Water absorption Mean value: 1.21% Max. value: 1.25%	1) Mean value of water absorption ≤ 7 % in weight 2) Individual values of water absorption ≤ 9 % in weight	Pass
Water absorption, thickness swell 24h	EN 15534-1:2014 8.3.1	Means swelling in thickness: 0.04% in width: 0.01% in length: 0.01% Max. swelling in thickness: 0.05% in width: 0.01% in length: 0.01% Mean water absorption: 0.49% Max. water absorption: 0.56%	1) Means swelling $\leq 4\%$ in thickness $\leq 0.8\%$ in width $\leq 0.4\%$ in length 2) Individual swelling $\leq 5\%$ in thickness ≤ 1.2 in width ≤ 0.6 in length 3) Mean water absorption $\leq 7\%$ in weight 4) Individual values of water absorption ≤ 9 in weight	Pass

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Test Items	Test Method	Test Results	Test Requirements	Verdict
Nail and screw withdrawal	EN 15534-1:2014 7.6 & EN 13446:2002	Surface withdrawal: 21.5 N/mm ²	/	/
Hardness (resistance to indentation)	EN 15534-1:2014 7.5 & EN 1534:2010	Brinell hardness: 184 HB Rate of elastic recovery: 35%	/	/

Note:

- The test span was 300mm offered by applicant.

Test Items	Method	Result		
Density	EN ISO 1183-1:2012 method A	1299 kg/m ³		
Freeze-thaw 3 cycles ¹	ASTM D7031:2011, EN 310:1993	Bending strength: 34.6 MPa Modulus of elasticity: 3427 MPa		
Linear thermal expansion ²	ASTM D696:2008e1	41.4×10 ⁻⁶ /°C		
Formaldehyde ³	ASTM D6007:2014	<0.02 ppm		
Pb, Cu content ⁴	EN 71-3:2013	Limit (mg/kg)	Result (mg/kg)	
		Copper (Cu)	7700	<10
		Lead (Pb)	160	<10
Point load ⁵	In house method	Breaking load: 5855 N		
Uniform unadjusted allowable load ⁶	ASTM D6109-13 modified	50.3 kN/m ²		

- The test span was 300 mm offered by applicant
- The test temperature was form -30°C to 30°C
- As per ASTM D6007:2002(R2008) small chamber method, formaldehyde content was detected by UV-VIS spectrophotometer
Chamber type: 0.225 m³ stainless steel chamber
Climatic conditions: 25°C, 50%R.H.
Air exchange rate: 0.5 h⁻¹
Loading factor: 0.95 m²/m³
Detection limit = 0.02 ppm
ppm = parts per million
- mg/kg = Milligram per kilogram
- Test span was 300 mm
Test speed was refer to ASTM D6109-13, it was 7.24 mm/min
The load location was the center of the top-surface of the sample
The load area was 50×50 mm square
- Test span was 300 mm
Test speed was 7.24 mm/min

Appendix A: Sample photos

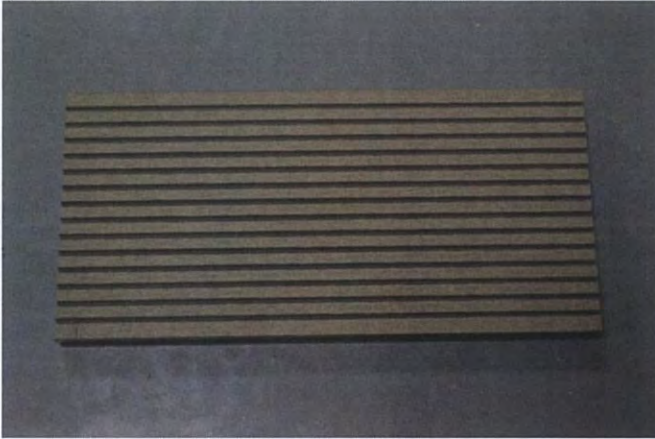


Fig.1 Front view

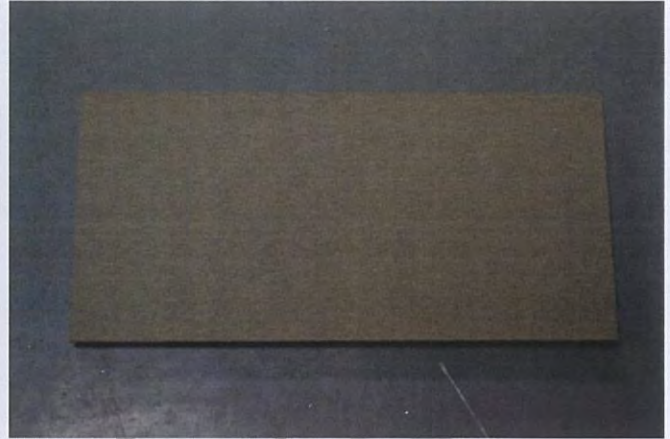


Fig.2 Back view

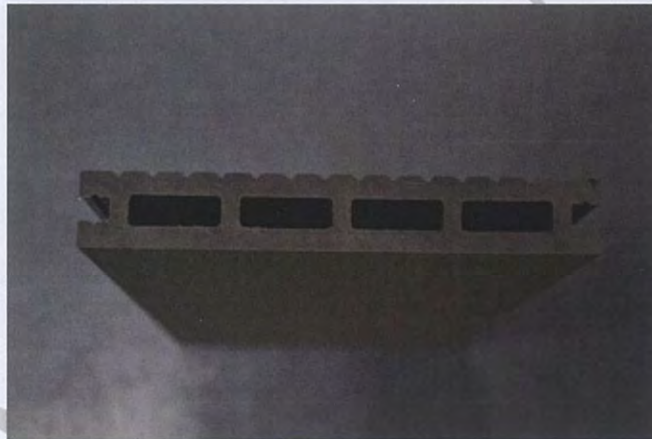


Fig.3 Section view

The End of Report

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