

Sample description : The samples received were solid wood panel. The nominal thickness of sample is 27 mm, with a 3-layer veneer assembly structure. The sample size is 128. The samples are sent to SJT by the applicant, and the package is complete and in good condition. Sampled specimen quantity and specimen specification are shown in below Table:

Test Item	Specimen Specification (Length×Width×Thickness, mm)	Sample Size (Piece)
Density	50×50×27	6
Bonding Quality	50×40×27	10
Durability (Moisture resistance)	50×40×27	10
Bending Strength	590×50×27	6
Modulus of Elasticity		
Release of Formaldehyde	500×500×27	2

Manufacturer : /

Country of origin : /

The above samples and information are provided and confirmed by the applicant, and SJT is not responsible for verifying the accuracy, appropriateness, reliability and / or integrity of the information provided by the applicant.

Sample No. : 2025033106A1-A128

Date of Sample Received : March 31, 2025

Testing Period : March 31, 2025 ~ April 18, 2025

Test Results : Please refer to next page(s).

Result Summary :

Test Requested	Conclusion
BS EN 323: 1993 - Density	Pass
EN 13986-2004+A1-2015 - Bonding Quality	Pass
EN 13986-2004+A1-2015 - Durability (Moisture resistance)	Pass
EN 13986-2004+A1-2015 - Bending Strength	Pass
EN 13986-2004+A1-2015 - Modulus of Elasticity	Pass
EN 13986-2004+A1-2015 - Release of Formaldehyde	Pass

Note:

- (1) Density, bending strength, modulus of elasticity of the sample meet the requirements stated in Table 4- Density, bending strength and modulus of elasticity in bending of multi-layer solid wood panels (requirements for technical classes SWP/1 S, SWP/2 S and SWP/3 S) of EN 13353:2022 Solid wood panels (SWP) - Requirements.
- (2) Bonding quality of the sample meet the requirements for bonding quality stated in Table 2-Requirements of EN 13353:2022 Solid wood panels (SWP) - Requirements.
- (3) The applicable decision rules of this test are: IEC Guide 115: 2007 Procedure 2 - Accuracy method, do not subject to measurement uncertainty.

Compile: *Chen Jiajia*

Verify: *Chen Yang*

Approve: *Song Li*



Test Results

BS EN 323: 1993—Density

Test method: Reference to density stated in BS EN 323:1993 Wood-based panels Determination of density.

<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>Test Results</u>
Density	≥ 410	kg/m ³	429.9

EN 13986-2004+A1-2015—Bonding Quality

Test method: Reference to bonding quality stated in EN 13354: 2008 Solid wood panels (SWP) - Bonding quality - Test method.

<u>Test Item(s)</u>		<u>Limit</u>	<u>Unit</u>	<u>Test Results</u>
Bonding quality-face A	Mean shear strength	$0.8 \leq f_v < 1.2$	N/mm ²	0.88
	The standard deviation	No requirement	/	0.16
	Mean percentage wood failure	> 20	%	82
Bonding quality-face B	Mean shear strength	$0.4 \leq f_v < 0.8$	N/mm ²	0.69
	The standard deviation	No requirement	/	0.18
	Mean percentage wood failure	> 40	%	61

Note: Pretreatment of solid wood panel refer to SWP/1 Dry conditions stated in Table - 1 Pretreatment for single and multi-layer solid wood panels intended for use in dry, humid or exterior conditions.

EN 13986-2004+A1-2015—Durability (Moisture resistance)

Test method: Reference to bonding quality stated in EN 13354: 2008 Solid wood panels (SWP) - Bonding quality - Test method.

<u>Test Item(s)</u>		<u>Limit</u>	<u>Unit</u>	<u>Test Results</u>
Bonding quality-face A	Mean shear strength	$0.8 \leq f_v < 1.2$	N/mm ²	0.87
	The standard deviation	No requirement	/	0.17
	Mean percentage wood failure	> 20	%	72
Bonding quality-face B	Mean shear strength	$0.8 \leq f_v < 1.2$	N/mm ²	1.00
	The standard deviation	No requirement	/	0.16
	Mean percentage wood failure	> 20	%	55

Note: Pretreatment of solid wood panel refer to SWP/1 Dry conditions stated in Table - 1 Pretreatment for single and multi-layer solid wood panels intended for use in dry, humid or exterior conditions.

EN 13986-2004+A1-2015 - Bending Strength

Test method: Reference to bending strength determination stated in BS EN 789: 2004 Timber structures Test methods
Determination of mechanical properties of wood based panels.

Test Item(s)		Limit	Unit	Test Results
Bending strength	Parallel to the grain direction of the outer layer	≥ 27	N/mm ²	28.4
	Perpendicular to the grain direction of the outer layer	≥ 5	N/mm ²	7.4

EN 13986-2004+A1-2015 - Modulus of elasticity

Test method: Reference to Modulus of elasticity determination stated in BS EN 789: 2004 Timber structures Test methods
Determination of mechanical properties of wood based panels.

Test Item(s)		Limit	Unit	Test Results
Modulus of elasticity	Parallel to the grain direction of the outer layer	≥ 8500	N/mm ²	8650
	Perpendicular to the grain direction of the outer layer	≥ 700	N/mm ²	850

EN 13986-2004+A1-2015 - Release of formaldehyde

Test method: Reference to release of formaldehyde stated in BS EN 717-1: 2004 Wood-based panels Determination of formaldehyde release Part 1: Formaldehyde emission by the chamber method.

<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>Test Results</u>
Release of formaldehyde	≤0.124	mg/m ³	0.067

Representative Sample Photo



SJT authenticate the photo on original report only.

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