

Declaration of performance

No. SH-002_23 – SWP/2 S

1. Unique identification code of the product type:

Solid wood panels according to EN 13986 corresponding to the technical class SWP/2 S 3L (load-bearing)

2. Type number, batch number, serial number or another mark for the identification of the construction product according to article 11, paragraph 4 of the BauPVO (Construction Products Regulation):

The assignment to the production can be obtained from the construction component marking.

3. Intended use of the construction product according to the harmonized technical specification:

Solid wood panels to be used as load-bearing construction components in humid environments according to EN 13353:2022

4. Name, registered trade name or brand as well as address of the manufacturer according to article 11, paragraph 5 of the BauPVO:

**SchwörerHaus KG
Hans-Schwörer-Straße 8
72531 Hohenstein/Oberstetten
Germany**

5. Name and address of the person authorized for the tasks according to article 12 paragraph 2 of the BauPVO:

No authorized person

6. System for the evaluation and verification of the constancy of performance according to annex V of the BauPVO:

System 2+

7. If the construction product is regulated by a harmonized norm:

Materials Testing Institute University of Stuttgart (MPA Stuttgart, Otto Graf Institute (FMPI)), Identification number: 0672

8. If the construction component is regulated by a European technical evaluation:

Not applicable

9. Declared performance:

Tabulated strength and stiffness values according to DIN EN 12369-3 (see annex table 1)

10. The performance of the product according to numbers 1 and 2 corresponds to the declared performances according to number 9. The manufacturer, according to number 4, is solely responsible for the issue of this declaration of performance.

Signed on behalf of the manufacturer:

Technical director, Rainer Henniger

Hohenstein-Oberstetten, 10.10.2023



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(Signature)

Performance characteristics SWP/2 S 3L

Product type **solid wood panels according to EN 13986 corresponding to the technical class SWP/2 S L3**

Utilization class **2 according to ENV 1995-1-1**

Flexural strength **see table 1**

Flexural strength (modulus of elasticity) **see table 1**

Bonding quality class **SWP/2 according to DIN EN 13354**

Fire behaviour class **D**
 smoke class **s2**
 drip class **d0**

Water vapour permeability μ humid **65**
 μ dry **188**

Formaldehyde class **E1 according to EN 13986**

panel thickness	16mm	19mm	22mm	24mm	27mm	30mm	33mm	35mm	42mm	49mm
Airborne sound insulation R (db)	25.1	26.1	26.9	27.4	28.1	28.7	29.2	29.6	30.6	31.5

(for the frequency range 1 kHz to 3 kHz)

Sound absorption coefficient **0.1 (for the frequency range 250 Hz to 500 Hz)**
0.3 (for the frequency range 1000 Hz to 2000 Hz)

Thermal conductivity λ **0.12 W/(m*k)**

Strength and stiffness **see table 1**

Biological durability **utilization class 1**

Mechanical durability **characteristic values not defined**

Content of pentachlorophenol **< 5 ppm**

Characteristic bulk density **> 410 kg/m³**

Table 1 – Characteristic values of multi-layered solid timber boards in accordance with EN 13353

Characteristic strength in N/mm ² and raw density in kg/m ³													
Thickness, mm	Raw density	Bend crosswise to the board		Bend in line with the board		Tension		Pressure		Thrust perpendicular to the board		Thrust in line with the board	
		$f_{m,flat}$		$f_{m,edge}$		f_t		f_c		$f_{v,edge}$		$f_{v,flat}$	
		0	90	0	90	0	90	0	90	0	90	0	90
12 to 20	410	30	5	25	12	12	3	18	12	4	4	1.0	1.0
>20 to 30	410	27	5	18	12	9	3	16	10	4	4	1.0	1.0
>30 to 80	410	20	10	12	12	6	3	10	10	2.5	2.5	1.0	1.0

Average rigidity values in N/mm ²													
Thickness mm	Bend perpendicular to the board		Bend in line with the board		Tension		Pressure		Thrust crosswise to the board		Thrust in line with the board		
	$E_{m,flat}$		$E_{m,edge}$		E_t		E_c		$G_{,edge}$		$G_{,flat}$		
	0	90	0	90	0	90	0	90	0	90	0	90	
12 to 20	10 000	650	6000	4000	6000	4000	6000	4000	450	450	50	50	
>20 to 30	10 000	800	5000	4000	5000	4000	3500	2500	450	450	50	50	
>30 to 80	8000	1500	4000	4000	4000	4000	2500	2500	450	450	50	50	

0.85x the averages stated above should be taken as the 5% characteristic rigidity value. 1.1x the characteristic values stated above should be taken as the average raw density of the board. The requirements for the other properties are specified in EN 13353.