

# Declaration of performance

No. 110-002

## best wood CLT / best wood CLT XL

1. Unique identifier code of the product type:

CLT – Cross laminated timber according to ETA-21/0568

2. Purpose:

For use as supporting, stiffening or non-supporting elements in buildings. Use is only permitted in buildings with mainly stationary traffic loads (in accordance with EC 5).

3. Manufacturer:

Holzwerk Gebr. Schneider GmbH  
Kappel 28, 88436 Eberhardzell, Germany

4. Authorised representative:

No external authorised representative

5. System for assessment and verification of the constancy of performance:

System 1

6.

- |                                  |   |
|----------------------------------|---|
| a. Harmonised standard:          | Not available   |
| Notified body:                   | Not available   |
| b. European Assessment Document: | European Assessment Document EAD 130005-00-0304 (04/2020) |
| European Technical Assessment:   | ETA-21/0568 dated 13/07/2021                              |
| Technical assessment office:     | ETA-Danmark, Göteborg Plads 1, DK-2150 Nordhavn           |
| Notified body:                   | MPA Stuttgart 0672, MPA Karlsruhe 0754                    |

7. Declared performance:

Strength class:	C24 according to EN 338
Number of layers:	≥ 3
Dimensions:	Thickness 36-360 mm; width 0.90-3.50 m; length ≤ 16.0 m
Application classes:	1 and 2 according to 1995-1-1
Wood moisture:	8 - 15 % (difference in a CLT element: 5%)
Bonding:	PUR Type 1
Reaction to fire:	D-s2, d0
Heat conductivity $\lambda$ :	0.12 W/m*K
Specific heat capacity:	1600 J/kg*K
Diffusion resistance $\mu$ :	20 (damp) / 50 (dry)
Durability class:	4
Emission class:	E1 according to DIN EN 717-1
Airtightness (CLT):	Airtight after testing in accordance with EN 12114 from 60mm
Airtightness (CLT XL)	Airtight after testing in accordance with EN 12114 from 60mm

8. Specific technical characteristics:

**best wood CLT**

Characteristics	Verification procedure	Numeric value
<b>Mechanical strength and stability</b>		
<b>1. Perpendicular to board level</b>		
Strength class of lamellae	EN 338	C24
Bending strength: - parallel to fiber direction $f_{m,k}$	EAD 130005-00-0304 2.2.1.1	$k_{sys} \cdot 24 \text{ N/mm}^2$ [1]
Tensile strength: - perpendicular to fiber direction $f_{t,90,k}$	EN 338	0.4 N/mm <sup>2</sup>
Compressive strength: - perpendicular to fiber direction $f_{c,90,k}$	EAD 130005-00-0304	3.0 N/mm <sup>2</sup>
Shear strength: - parallel to fiber direction $f_{v,k}$ - perpendicular to fiber direction $f_{R,k}$ (rolling shear strength)	EN 338 EAD 130005-00-0304 2.2.1.3	4.0 N/mm <sup>2</sup> 1.3 N/mm <sup>2</sup> [2] 1.2 N/mm <sup>2</sup> [3]
Modulus of elasticity: - parallel to fiber direction $E_{0,mean}$ - perpendicular to fiber direction $E_{90,mean}$	EAD 130005-00-0304 2.2.1.1 EN 338	12,000 N/mm <sup>2</sup> 370 N/mm <sup>2</sup>

Shear module: - parallel to fiber direction $G_{mean}$ - perpendicular to fiber direction $G_{90,mean}$	EN 338 EAD 130005-00-0304 2.2.1.3	690 N/mm <sup>2</sup> 50 N/mm <sup>2</sup>
<b>2. At board level</b>		
Bending strength: - parallel to fiber direction $f_{m,k}$	EN 338	24.0 N/mm <sup>2</sup>
Tensile strength: - parallel to fiber direction $f_{t,0,k}$	EN 338	14.5 N/mm <sup>2</sup>
Compressive strength: - perpendicular to fiber direction $f_{c,0,k}$	EN 338	21 N/mm <sup>2</sup>
Modulus of elasticity: - parallel to fiber direction $E_{0,mean}$	EAD 130005-00-0304 2.2.1.1	12,000 N/mm <sup>2</sup>
<b>3. Other mechanical effects</b>		
Fasteners	According to EN 1995-1-1 and ETA-21/0569 Annex 4	
Creep behaviour and durability	According to EN 1995-1-1	
Dimensional stability	The moisture content may not fluctuate so much during use that unfavourable shape changes occur.	
<b>3. Fireproofing</b>		
Charring rate $\beta_0$	EAD 130005-00-0304	0.65 mm/min
Charring rate $\beta_n$		0.7 mm/min
<b>Remarks</b>		
[1] $k_{sys} = \min \{0.975 + 0.025 \cdot n_l ; 1.2\}$ with $n_l$ = number of layers in span direction [2] for lamellae thicknesses of 20 and 30 mm [3] for lamellae thickness of 40 mm		

### **best wood CLT XL**

Characteristics	Verification procedure	Numeric value
<b>Mechanical strength and stability</b>		
<b>1. Perpendicular to board level</b>		
Strength class of lamellae	EN 338	C24
Bending strength: - parallel to fiber direction $f_{m,k}$	EAD 130005-00-0304 2.2.1.1	$k_{sys} \cdot 24 \text{ N/mm}^2$ [1]
Tensile strength: - perpendicular to fiber direction $f_{t,90,k}$	EN 338	0.4 N/mm <sup>2</sup>
Compressive strength: - perpendicular to fiber direction $f_{c,90,k}$	EAD 130005-00-0304	3.0 N/mm <sup>2</sup>

Shear strength: - parallel to fiber direction $f_{v,k}$ - perpendicular to fiber direction $f_{R,k}$ (rolling shear strength)	EN 338 EAD 130005-00-0304 2.2.1.3	4.0 N/mm <sup>2</sup> 1.1 N/mm <sup>2</sup>
Modulus of elasticity: - parallel to fiber direction $E_{0,mean}$ - perpendicular to fiber direction $E_{90,mean}$	EAD 130005-00-0304 2.2.1.1 EN 338	12,000 N/mm <sup>2</sup> 370 N/mm <sup>2</sup>
Shear module: - parallel to fiber direction $G_{mean}$ - perpendicular to fiber direction $G_{90,mean}$	EN 338 EAD 130005-00-0304 2.2.1.3	690 N/mm <sup>2</sup> 50 N/mm <sup>2</sup>
<b>2. At board level</b>		
Bending strength: - parallel to fiber direction $f_{m,k}$	EN 338	24.0 N/mm <sup>2</sup>
Tensile strength: - parallel to fiber direction $f_{t,0,k}$	EN 338	14.5 N/mm <sup>2</sup>
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<b>3. Fireproofing</b>		
Charring rate $\beta_0$	EAD 130005-00-0304	0.65 mm/min
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<b>Remarks</b>		
[1] $k_{sys} = \min \{0.975 + 0.025 \cdot n_l ; 1.2\}$ with $n_l$ = number of layers in span direction		

The performance of the above product fulfils the declared performance. The above mentioned manufacturer has the sole responsibility for the preparation of the declaration of performance in accordance with the regulation (EU) No. 305/2011.

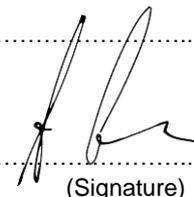
Signed for and on behalf of the manufacturer by:

**Ferdinand Schneider, Managing director**

.....  
(Name and job title)

**Eberhardzell, 20/12/2023**

.....  
(Place and date of issuance)

  
(Signature)