MADE FOR BUILDING
BUILT FOR LIVING

Declaration of Performance

No.: DOP_KLH_K_2025_v01_en

1. Unique identification code of the product type:

   KLH® - CLT

2. Intended use:

   Solid wood slab elements to be used as load bearing or non-load bearing structural elements in buildings.

3. Name, registered trade name or registered trademark and contact address of the manufacturer:

   KLH Massivholz GmbH
   8842 Teufenbach-Katsch, Gewerbestraße 4
   Austria

4. Authorised representative:

   KLH Massivholz GmbH
   8842 Teufenbach-Katsch, Gewerbestraße 4
   Austria

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

   System 1

6. European Assessment Document: **EAD 130005-00-0304**
   European Technical Assessment: **ETA-06/0138 issued on 18.01.2021**
   Technical assessment body: **Austrian Institute of Construction Engineering (OIB)**
   Notified body: **Holzforschung Austria Nr. 1359**

7. Declared properties:

Wood species	
European spruce (PCAB) or equivalent softwood (ABAL - fir, PNSY - pine)	
Product dimensions	
Widths to	2 980 mm
Lengths to	16 500 mm
Thicknesses from	60 to 360 mm
The actual product dimensions can be obtained from the accompanying documents	

Essential Characteristics	Performance
1. Mechanical resistance and stability	
Plate actions	
Modulus of elasticity parallel to the grain of the boards $E_{0,mean}$ normal to the grain of the boards $E_{90,mean}$	 12 000 MPa 450 MPa
Shear modulus parallel to the grain of the boards $G_{0,mean}$ normal to the grain of the boards, rolling shear modulus $G_{90,mean}$	 690 MPa 50 MPa
Bending strength parallel to the grain of the boards $f_{m,k}$	 24 MPa
Tensile strength normal to the grain of the boards $f_{t,90,k}$	 0,12 MPa
Compressive strength normal to the grain of the boards $f_{c,90,k}$	 2,7 MPa
Shear strength parallel to the grain of the boards $f_{v,k}$ normal to the grain of the boards (rolling shear strength) $f_{v,R,k}$	 2,7 MPa 1,2 MPa
Membrane actions	
Modulus of elasticity parallel to the grain of the boards $E_{0,mean}$	 12 000 MPa
Shear modulus parallel to the grain of the boards $G_{0,mean}$	 500 MPa
Bending strength parallel to the grain of the boards $f_{m,k}$	 24 MPa
Tensile strength parallel to the grain of the boards $f_{t,0,k}$	 16,5 MPa
Compressive strength global, parallel to the grain of the boards $f_{c,0,k}$	 24 MPa
Shear strength regardless of loading direction, per glue line $f_{v,K,k}$ (Shear flow) parallel to the grain of the boards $f_{v,k}$ (Shear stress)	 90 N/mm 3,9 to 8,4 MPa

Essential Characteristics	Performance
Other mechanical actions	
Embedment strength	According to EN 1995-1-1
Creep and duration of the load	k_{mod} and k_{def} according to EN 1995-1-1 for glued laminated timber
Dimensional stability as tolerances based on EN 336 for thickness and width	For elements with a length > 1 m ± 2 mm related to standard cutting and wood moisture content 12 %
Dimensional stability as wood moisture content after production	u = 12 ± 2 %
Coefficient of thermal expansion according to EN 1995-1-1	a = 5 x 10^{-6}/K
In-service environment as use classes according to EN 1995-1-1	 1 and 2
Bond integrity according to EAD 130005-00-0304 Adhesives used for surface bonding and finger jointing Glue line integrity as delamination test according to EN 14080, annex C, method B	Passed According to EN 15425 Delamination fulfilled

Essential Characteristics	Performance
2. Safety in case of fire	
Reaction to fire	D-s2, d0
Resistance to fire	Parameters for fire design according to annex 5, table 6 of ETA-06/0138 Fire resistance duration from REI 30 to REI 240 depending on the panel structure or possible fire protection claddings
3. Hygiene, health and environment	
Content, emission and/or release of hazardous substances as formaldehyde emissions	Formaldehyde emission class E1 according to EN 14080, formaldehyde free adhesive
Other hazardous substances	NPD
Water vapour permeability as water vapour diffusion resistance factor μ (including joints) according to EN ISO 12572	μ = 300 (dry) to 46 (wet)
4. Safety and accessibility in use	
Impact resistance with a soft body	Fulfilled
5. Protection against noise	
Airborne sound insulation according to EN 10140-2	ETA-06/0138, annex 6
Impact sound insulation according to EN 10140-3	ETA-06/0138, annex 6
6. Energy economy and heat retention	
Thermal conductivity according to EN ISO 10456	λ = 0,12 W/(m K)
Air permeability according to EN 12114	Class 4 (tight) according to EN 12207
Thermal inertia as specific heat capacity c_p according to EN ISO 10456	c_p = 1 600 J/(kg K)

The performance of the product is in accordance with/conforms to the declared performance. This declaration of performance is coherent with the regulation (EU) No. 305/2011 and is issued under the sole responsibility of the manufacturer identified under item 3 above.

Signed for and on behalf of the manufacturer by:

KLH MASSIVHOLZ GMBH
8842 Teufenbach-Katsch | Gewerbestraße 4
Tel +43 (0)3588 8835 | Fax +43 (0)3588 8835 415
office@klh.at | www.klh.at

Mag. Marco Huter, Managing Director

Ing. Johann Hochegger MSc, Managing Director

Teufenbach-Katsch, 18.08.2025

MADE FOR BUILDING
BUILT FOR LIVING

Declaration of Performance

No.: DOP_KLH_W_2025_v01_en

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   8842 Teufenbach-Katsch, Gewerbestraße 4
   Austria

4. Authorised representative:

   KLH Massivholz Wiesenau GmbH
   9462 Bad St. Leonhard, Wiesenau 2
   Austria

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Signed for and on behalf of the manufacturer by:

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Bad St. Leonhard, 18.08.2025