Declaration of performance

DOP CLT 20_0023
In acc. with (EU) no. 305/2011

1. Unique identification code of the product type: Pfeifer CLT Glue-Laminated Timber

2. Envisaged purpose of use: load-bearing and non-load-bearing element in buildings and timber constructions

3. Manufacturer: Pfeifer Timber GmbH
Mühlenstraße 7
86556 Unterbernbach
Germany

4. Authorised representative: no extern authorised representative

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

System 1

6.b) European Assessment: EAD 130005-00-0304, version march 2015

European Technical Assessment ETA-20/0023 of 27.01.2020

Technical Assessment Body Österreichisches Institut für Bautechnik, Schneckenstraße 4, 1010 Wien – AT

Identification number of the notified body: Holzcert Austria 1359

Certificate of conformity no.: 1359-CPR-0800

7. Declared product performance:

Number of layers	3 – 15, symmetric assembly
Dimension	Thickness 57 – 320mm, width ≤3,1m, length ≤14,5m
Wood species	spruce - PCAB or equivalent softwood
Adhesive	PUR, EN 15425-I-70-PG-0,3-w
Maximum number of adjacent layers arranged in the same direction	2 for n = 5; 3 for n > 5
Maximum width of joints between boards within one layer	≤ 6mm, mean value 2mm
Moisture of wood according to EN 13183-2	10% ± 2 or 12% ± 2
Finger joints	EN 14080
strength class	Cover layer C24, Inner layer ≤ 10% C16 ≥ 90% C24
Board width	72 – 300mm
Ratio width to thickness	≥ 4:1
Board Thickness (planed dimension)	18 – 45mm

8. Declared performance:

Essential characteristics	Level / Class / Description	Assessment method
Mechanical resistance and stability as strength class C24:		EN 338
1. Mechanical actions perpendicular to cross laminated timber		
Modulus of elasticity		
- parallel to the grain of the boards *E0, mean*	11000 N/mm²	EAD 130005-00-0304, 2.2.1.1
- perpendicular to the grain of the boards *E90, mean*	370 N/mm²	EN 338
Shear modulus		
- parallel to the grain of the boards *G090, mean*	690 N/mm²	EN 338
- perpendicular to the grain of the boards (rolling shear modulus) *G9090, mean*	50 N/mm²	EAD 130005-00-0304, 2.2.1.1
Bending strength		
- parallel to the grain of the boards *fm, k*	24 N/mm²	EAD 130005-00-0304, 2.2.1.1
Tensile strength		
- perpendicular to the grain of the boards *ft, 90, k*	0,12 N/mm²	EN 338, reduced
Compressive strength		
- perpendicular to the grain of the boards *fc, 90, k*	2,5 N/mm²	EN 338
Shear strength		
- parallel to the grain of the boards *fv, 090, k*	3,7 N/mm²	EN 338
- perpendicular to the grain of the boards (rolling shear strength) *fv, 9090, k*	1,3 N/mm²	EAD 130005-00-0304, 2.2.1.1
2. Mechanical actions in plane of cross laminated timber		
Modulus of elasticity		
- parallel to the grain of the boards *E0, mean*	11000 N/mm²	EAD 130005-00-0304, 2.2.1.1
Sear modulus		
- parallel to the grain of the boards *G090, mean*	450 N/mm²	EAD 130005-00-0304, 2.2.1.1
Bending strength		
- parallel to the grain of the boards *fm, k*	24 N/mm²	EAD 130005-00-0304, 2.2.1.1
Tensile strength		
- parallel to the grain of the boards *ft, 0, k*	14,5 N/mm²	EN 338
Compressive strength		
- parallel to the grain of the boards *fc, 0, k*	21 N/mm²	EN 338
Shear strength		
- parallel to the grain of the boards *fv, 090, k*	3,5 N/mm²	EAD 130005-00-0304, 2.2.1.1

3. Other mechanical actions		
Fasteners	EN 1995-1-1, the direction of grain of the cover layer shall be taken as reference	
Creep and duration of load	*kmod* and *kdef* according to EN 1995-1-1 for glued laminated timber	
Dimensional stability	Moisture content during service shall not change to such an extent that adverse deformation will occur.	
Bond integrity	Pass	EAD 130005-00-0304
4. Reaction to fire		
Glued laminated timber products	Mean density of wood ≥ 380 kg/m3Euroclass D-s2, d0	Commission Decision 2005/610/EC
Fire resistance	NPD[1]	
5. Hygiene, health and environment		
Vapour permeability, μ, including joints within the layers	50 (dry) to 20 (wet)	EN ISO 10456
Release of hazardous substances	No release of hazardous substances	EAD 130005-00-0304
6. Safety and accessibility in use		
Impact resistance	Soft body resistance is assumed to be fulfilled for walls with a minimum of 3 layers and minimum thickness of 60 mm.	
7. Energy economy and heat retention		
Thermal conductivity λ of wood λ	0,12 W/(m*K)	EN ISO 10456
Air permeability	Class 4 according to EN 12207	EN12114
Thermal inertia, specific heat capacity *cp* of wood	1600 J/(kg*K)	EN ISO 10456
8.Sound protection		
Airborne sound insulation	NPD[1]	
Footfall sound insulation	NPD[1]	
Sound absorption	NPD[1]	

[1] NPD= **N**o **P**erformance **D**etermined

The product performance in accordance with the declared performance. The manufacturer is solely responsible for the drafting of this declaration of performance in accordance with (EU) no. 305/2011

Signed on behalf of the manufacturer:

Unterbernbach, 01.03.2020, Bernd Gusinde, Produktmanagement CLT

(location, date, Nname und function)

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