

EN

**HASSLACHER**  
**NORICA TIMBER**

From **wood** to **wonders**.

Innovation

# HASSLACHER rib panels

The resource-efficient alternative.



# 01 At a glance

## Applications

- ⊕ Multi-storey residential buildings
- ⊕ Industrial and commercial buildings
- ⊕ Office buildings, schools and kindergartens
- ⊕ Urban densification

## Fields of use

- ⊕ Large-span ceilings
- ⊕ Large-span false ceilings
- ⊕ Large-span roof structures
- ⊕ Also suitable for walls

## Advantages

- ⊕ High design freedom for flexible spatial concepts
- ⊕ Effective and economic solution for spans larger than 6.0 m
- ⊕ Slim, environmentally friendly and cost-effective construction
- ⊕ Lightweight construction
- ⊕ Space between ribs can be used for acoustic improvement measures or installations
- ⊕ High degree of prefabrication
- ⊕ Quick and easy installation
- ⊕ Freely selectable dimensions and flexible sizes up to 3.20 m x 20 m or 1.25 m x 24 m

## Product description

### Composite cross-section

- ⊕ Panel-type wood-based material
  - Cross laminated timber acc. to ETA-12/0281
- ⊕ Bar-shaped wood based material
  - Glued laminated timber acc. to EN 14080
  - Glued solid timber acc. to EN 14080
  - Structural finger jointed solid timber acc. to EN 15497
- ⊕ Joining
  - Efficient, bonded rigid connection
  - PRF adhesive (dark glue line) or
  - MUF adhesive (bright glue line)

# 02 Overview

## Product standard

European Technical Assessment ETA-21/0745

## Surface qualities

### Cross laminated timber

Excellent surface  
Visible quality  
Industrial-visual quality  
Industrial quality

### Glued laminated timber

Visible quality  
Industrial quality

## Cross sections

### Cross laminated timber

Thickness: 80 mm to 240 mm  
Widths: 1.25 and up to 3.20 m  
Lengths: up to 24 m

### Glued laminated timber

Widths: 80 mm to 280 mm  
Heights: 80 mm to 1,280 mm

## Strength classes

### Cross laminated timber

CL26E11.8  
CL36E14.7

### Glued laminated timber

GL24h(c) to GL32h(c)

## Wood species

- ⊕ Spruce/fir
- ⊕ Other wood species upon request

## Certificates

The current certificates are available in the download area of our website at [HASSLACHER.COM](https://www.hasslacher.com).

## Sustainability

The HASSLACHER group stands for a careful use of wood as a resource. Our raw materials come from sustainable and controlled forestry. Our sites have been certified in accordance with the stringent PEFC standards.



# 03

## Technical data

### Bonding

Melamine resin adhesive with bright glue line,  
Adhesive type I according to EN 301 approved for  
gluing of loadbearing and non-loadbearing timber  
components, both indoors and outdoors

### Cross laminated timber lamellas

Thickness: 19 mm to 45 mm  
Strength: CL26E11.8 100 % C24/L25/T14  
in the top layers  
max. 30 % C16/L17/T11  
in the middle layers  
CL36E14.7 100 % C40/L40/T26  
in the top layers  
100 % C24/L25/T14  
in the middle layers

### Glued laminated timber lamellas

max. lamella thickness: 45 mm

### Wood moisture content

11 % ± 2 % at dispatch

### Density

Spruce: on average ca. 450 kg/m<sup>3</sup> bis 500 kg/m<sup>3</sup>

### Thermal conductivity

$\lambda = 0.12 \text{ W/mK}$

### Thermal capacity

1600 J/kgK

### Diffusion resistance

According to EN ISO 10456  
m = 50 (dry) to 20 (wet)

### Formaldehyde emissions

E1 according to EN 717-1 (<0.1 ppm)  
Actual measured value: < 0.02 ppm

### Fire behaviour

D-s2, d0

### Fire resistance

Cross laminated timber  
1<sup>st</sup> layer: 0.65 mm/min.  
Every additional layer: 0.80 mm/min.  
Glued laminated timber  
0.70 mm/min acc. to EN 1995-1-2

### Shrinking and swelling behaviour of HASSLACHER CLT

Out-of-plane direction  
 $\alpha_{u,90} = 0.24 \%$  per 1 % change in moisture content

In-plane direction  
 $\alpha_{u,90} = 0.01 \%$  per 1 % change in moisture content

### Size tolerances

according to DIN 18203-3

### Service classes

Service class 1 heated interior  
Service class 2 roofed outdoor area

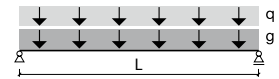
# 04

# Tables for preliminary design

## Ceilings without vibrational calculation

## Ceiling class 3: Roofs

### Single-span beams



$g_{1,k}$ kN/m <sup>2</sup>	$s = \mu \cdot s_k$ kN/m <sup>2</sup>	Span length L							
		7.00 m	8.00 m	9.00 m	10.00 m	11.00 m	12.00 m	13.00 m	14.00 m
0.50	1.00	100/120	100/160	100/200	100/240	120/240	120/280	140/320	140/360
	2.00	100/160	100/200	100/240	120/280	140/280	140/320	140/360	160/400
	3.00	100/200	100/240	120/240	140/280	140/280	140/400	140/440	160/440
	4.00	120/200	120/240	120/280	160/280	160/320	160/360	160/440	160/480
1.00	1.00	100/160	100/200	120/240	120/280	140/280	140/320	140/360	140/400
	2.00	120/200	120/240	120/280	140/280	140/320	140/360	160/400	160/440
	3.00	120/200	120/240	120/280	140/320	160/320	160/360	160/400	160/440
	4.00	120/240	120/240	120/280	140/320	160/360	160/400	160/440	160/480
1.50	1.00	100/200	120/200	120/240	120/280	140/320	140/320	160/320	160/360
	2.00	100/200	120/240	120/280	120/320	140/360	140/360	160/400	160/440
	3.00	120/200	120/240	120/280	120/360	140/360	140/400	160/440	160/480
	4.00	120/240	120/280	120/320	120/360	140/400	140/440	160/480	160/520
2.00	1.00	120/200	120/240	120/280	140/280	140/360	140/400	160/400	160/440
	2.00	120/200	120/240	120/280	140/320	140/360	140/400	160/440	160/480
	3.00	120/240	120/280	120/320	140/360	140/400	140/440	160/480	160/520
	4.00	120/240	120/280	120/320	140/360	140/400	140/480	160/480	160/560
2.50	1.00	120/200	120/240	140/280	140/320	140/360	140/400	160/440	160/480
	2.00	120/240	120/280	140/320	140/360	140/400	140/440	160/480	160/520
	3.00	120/240	120/280	140/320	140/360	140/400	140/440	160/480	200/520
	4.00	120/240	120/280	140/320	140/400	140/440	140/480	160/520	200/520

The tables shall support the preliminary design of HASSLACHER rib panels and do not replace the static proof. The CLTdesigner was developed by the Center of Competence holz.bau forschungs gmbh / Technical University Graz and is available to our customers free of charge and without obligation; more information on this is available at hasslacher.com.

### Rib

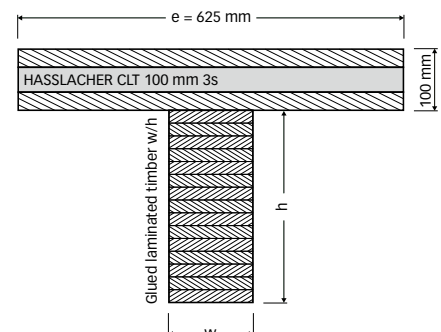
Glued laminated timber GL24h acc. to EN 14080

### Panel

HASSLACHER CLT 100 3s CL26E11.8 acc. to ETA-12/0281

### Boundary conditions

- ⊕ Service class 1 acc. to EN 1995-1-1
- ⊕ Continuous load  $g_{1,k}$  does not include dead weight, dead weight was considered in  $g_{0,k}$ .
- ⊕  $s...$  Snow load in kN/m<sup>2</sup> below 1,000 m above sea level
- ⊕ Recommended deflection acc. to EN 1995-1-1 was considered.
- ⊕ Vibrations are not considered in the framework of this preliminary design.
- ⊕ The load is to be considered as a uniformly distributed area load, individual loads are not taken into account.
- ⊕ Preliminary design was created using CLTdesigner by the Center of Competence holz.bau forschungs gmbh / Technical University Graz and acc. to EN 1995-1-1.



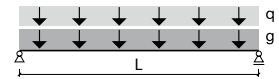
# 04

# Tables for preliminary design

## Ceilings with vibrational calculation

### Ceiling class 1: Ceilings

#### Single-span beams



$g_{1,k}$ kN/m <sup>2</sup>	$q_k$		Span length L					
	Category	kN/m <sup>2</sup>	6.00 m	7.00 m	8.00 m	9.00 m	10.00 m	11.00 m
1.00	A	2.00	120/160	140/200	140/280	140/360	160/440	160/520
		2.80	120/160	140/200	140/280	140/360	160/440	160/520
	B	3.00	120/160	140/200	140/280	140/360	160/440	160/520
		3.50	120/160	140/200	140/280	140/360	160/440	160/520
	C	4.00	120/160	140/200	140/280	140/360	160/440	160/520
		5.00	120/200	140/200	140/280	140/360	160/440	160/520
1.50	A	2.00	120/200	140/240	140/320	140/400	160/480	160/560
		2.80	120/200	140/240	140/320	140/400	160/480	160/560
	B	3.00	120/200	140/240	140/320	140/400	160/480	160/560
		3.50	120/200	140/240	140/320	140/400	160/480	160/560
	C	4.00	120/200	140/240	140/320	140/400	160/480	160/560
		5.00	120/200	140/240	140/320	140/400	160/480	160/560
2.00	A	2.00	120/200	140/280	140/360	140/440	160/520	160/600
		2.80	120/200	140/280	140/360	140/440	160/520	160/600
	B	3.00	120/200	140/280	140/360	140/440	160/520	160/600
		3.50	120/200	140/280	140/360	140/440	160/520	160/600
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		5.00	120/200	140/280	140/360	140/440	160/520	160/600
2.50	A	2.00	120/240	140/320	140/400	140/480	160/560	200/600
		2.80	120/240	140/320	140/400	140/480	160/560	200/600
	B	3.00	120/240	140/320	140/400	140/480	160/560	200/600
		3.50	120/240	140/320	140/400	140/480	160/560	200/600
	C	4.00	120/240	140/320	140/400	140/480	160/560	200/600
		5.00	120/240	140/320	140/400	140/480	160/560	200/600
3.00	A	2.00	120/240	140/320	140/400	140/520	160/600	200/640
		2.80	120/240	140/320	140/400	140/520	160/600	200/640
	B	3.00	120/240	140/320	140/400	140/520	160/600	200/640
		3.50	120/240	140/320	140/400	140/520	160/600	200/640
	C	4.00	120/240	140/320	140/400	140/520	160/600	200/640
		5.00	120/240	140/320	140/400	140/520	160/600	200/640

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#### Rib

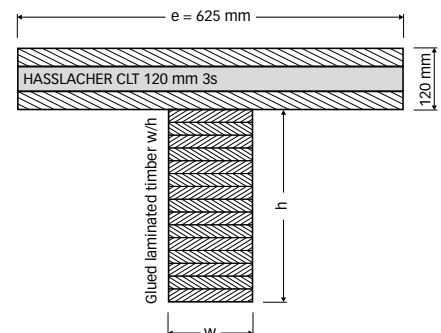
Glued laminated timber GL24h acc. to EN 14080

#### Panel

HASSLACHER CLT 120 3s CL26E11.8 acc. to ETA-12/0281

#### Boundary conditions

- ⊕ Service class 1 acc. to EN 1995-1-1
- ⊕ Continuous load  $g_{1,k}$  does not include dead weight, dead weight was considered in  $g_{0,k}$
- ⊕ Vibration verification according to DIN 1052 and/or EN 1995-1-1 for ceiling class 1 met.
- ⊕ The load is to be considered as a uniformly distributed area load. Individual loads are to be considered separately.
- ⊕ Preliminary design was created using CLTdesigner by the Center of Competence holz.bau forschungs gmbh / Technical University Graz and acc. to EN 1995-1-1.



05

# HASSLACHER group product range



Sawn timber



Surfaced timber



Structural finger jointed  
solid timber & GLT®



Glued solid timber Duo/Trio



Glued laminated timber



Glued ceiling systems



Cross laminated timber



Glued laminated timber  
special components



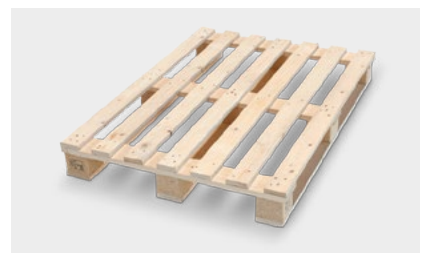
Solid wood boards



Pellets



Formwork panels



Pallets & packaging solutions

# HASSLACHER NORICA TIMBER

From **wood** to **wonders**.

## HASSLACHER group

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