

# Cross-Laminated Timber



**The following certificates demonstrate the outstanding quality of our products:**



# Cross-laminated timber non-visual grade

<b>Type of wood</b>	spruce, fir addition of other types of wood permissible
<b>Standard and strength</b>	ETA-23/0498
<b>Gluing</b>	finger joints: melamine/urea resin surface: polyurethane adhesive narrow side: hot-melt adhesive
<b>Dimensions</b>	Width: 1250 mm Height: 60–280 mm Length: 2700–14000 mm
<b>Surface and tolerance dimensions</b>	all sides non-visual grade planed on 4 sides with chamfer ± 1 mm in width and height ± 3 mm length tolerance
<b>Wood moisture</b>	12 % ± 2 %

Features	Permissibility
<b>Glued joint</b>	open joint up to 4 mm permissible
<b>Fracture in wood</b>	not permissible
<b>Rough areas</b>	occasionally permissible
<b>Discoloration, red stripes</b>	permissible
<b>Nail-proof brown stripes</b>	permissible
<b>Resin pockets</b>	permissible
<b>Bark inclusions</b>	permissible
<b>Chunking</b>	occasionally permissible
<b>Sound knots</b>	permissible

Features	Permissibility
<b>Loose knots</b>	permissible
<b>Tiny knots</b>	permissible
<b>Solid dead knots</b>	permissible
<b>Heartwood</b>	permissible
<b>Insect attack</b>	individual small wormholes up to 2 mm permissible
<b>Waney edge</b>	occasionally permissible
<b>Rot areas</b>	not permissible
<b>Checks</b>	permissible
<b>Packaging and storage</b>	Packaged in PE film

# Cross-laminated timber industrial visual grade

<b>Type of wood</b>	spruce, fir addition of other types of wood permissible industrial visible side only spruce, fir
<b>Standard and strength</b>	ETA-23/0498
<b>Gluing</b>	finger joints: melamine/urea resin surface: polyurethane adhesive narrow side: hot-melt adhesive/white glue
<b>Dimensions</b>	Width: 1250 mm Height: 60–280 mm Length: 2700–14000 mm
<b>Surface and tolerance dimensions</b>	one side industrial visual grade, other sides non-visual grade planed on 4 sides with chamfer industrial visual side sanded on request ± 1 mm in width and height ± 3 mm length tolerance
<b>Wood moisture</b>	12 % ± 2 %

Features	Permissibility
<b>Glued joint</b>	open joint up to 4 mm permissible
<b>Fracture in wood</b>	not permissible
<b>Rough areas</b>	occasionally permissible
<b>Discoloration, red stripes</b>	up to 10% of the surface permissible
<b>Nail-proof brown stripes</b>	permissible
<b>Resin pockets</b>	up to 10 x 90 mm permissible
<b>Bark inclusions</b>	occasionally permissible
<b>Chunking</b>	minor chunking permissible in small numbers
<b>Sound knots</b>	permissible

Features	Permissibility
<b>Loose knots</b>	permissible up to 30 mm
<b>Tiny knots</b>	permissible
<b>Solid dead knots</b>	permissible up to 30 mm
<b>Heartwood</b>	permissible
<b>Insect attack</b>	not permissible
<b>Waney edge</b>	occasionally permissible
<b>Rot areas</b>	not permissible
<b>Checks</b>	occasionally permissible
<b>Packaging and storage</b>	Packaged in PE film

# Cross-laminated timber visual grade\*

<b>Type of wood</b>	spruce, fir addition of other types of wood permissible visible side only spruce
<b>Standard and strength</b>	ETA-23/0498
<b>Gluing</b>	finger joints: melamine/urea resin surface: polyurethane adhesive narrow side: hot-melt adhesive/white glue
<b>Dimensions</b>	Width: 1250 mm Height: 60–280 mm Length: 2700–14000 mm
<b>Surface and tolerance dimensions</b>	one side visual grade, other sides non-visual grade planed on 4 sides with chamfer visual side sanded on request ± 1 mm in width and height ± 3 mm length tolerance
<b>Wood moisture</b>	12 % ± 2 %

\* on request

Features	Permissibility
<b>Glued joint</b>	open joint up to 2 mm permissible
<b>Fracture in wood</b>	not permissible
<b>Rough areas</b>	not permissible
<b>Discoloration, red stripes</b>	slight discoloration of up to 5% of the surface permissible
<b>Nail-proof brown stripes</b>	not permissible
<b>Resin pockets</b>	up to 5 x 50 mm permissible
<b>Bark inclusions</b>	occasionally permissible
<b>Chunking</b>	minor chunking permissible in small numbers
<b>Sound knots</b>	permissible

Features	Permissibility
<b>Loose knots</b>	not permissible
<b>Tiny knots</b>	permissible
<b>Solid dead knots</b>	occasionally permissible
<b>Heartwood</b>	occasionally permissible
<b>Insect attack</b>	not permissible
<b>Waney edge</b>	not permissible
<b>Rot areas</b>	not permissible
<b>Checks</b>	occasionally permissible
<b>Packaging and storage</b>	Packaged in PE film



# Mechanical properties

## Strength class according to ETA-23/0498

	Properties for mechanical actions perpendicular to CLT		Properties for mechanical actions in plane of CLT	
<b>Elasticity modulus</b>	E//mean	12 000 N/mm <sup>2</sup>	E//mean	3 layers: 10 000 N/mm <sup>2</sup> 5 layers: 11 500 N/mm <sup>2</sup> 7 layers: 12 000 N/mm <sup>2</sup>
<b>Shear modulus</b>	G//mean G <sup>⊥</sup> mean	690 N/mm <sup>2</sup> 50 N/mm <sup>2</sup>	G//mean	460 N/mm <sup>2</sup>
<b>Bending strength</b>	σ//0,05	1/k <sub>sys</sub> * 26,4 N/mm <sup>2</sup> (1)	σ//0,05	24 N/mm <sup>2</sup>
<b>Tensile strength</b>	σ <sup>⊥</sup> 0,05	0,12 N/mm <sup>2</sup>	σ <sup>⊥</sup> 0,05	14 N/mm <sup>2</sup>
<b>Compressive strength</b>	σ <sub>c</sub> <sup>⊥</sup> 0,05	2,5 N/mm <sup>2</sup>	σ <sub>c</sub> //0,05	21 N/mm <sup>2</sup>
<b>Shear strength</b>	σ <sub>v</sub> //0,05 σ <sub>v</sub> <sup>⊥</sup> 0,05	4,0 N/mm <sup>2</sup> 1,1 N/mm <sup>2</sup>	σ <sub>v</sub> //0,05	3,9 N/mm <sup>2</sup>

(1)  $k_{sys} = \max\left\{\frac{1,1-0,025*n}{1}\right\}$

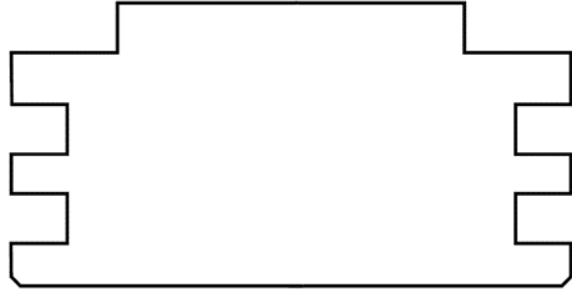
n ... number of boards within cover layer

You can find the European Technical Assessment Cross-Laminated Timber on our website [www.mosser.at/en/current-certificates-and-declarations-of-performance](http://www.mosser.at/en/current-certificates-and-declarations-of-performance)

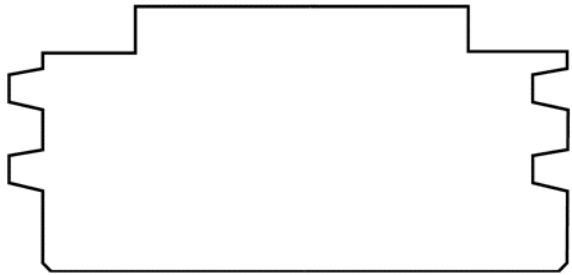
# Product composition

Thickness [mm]	Layers							
	Number	S1	S2	S3	S4	S5	S6	S7
60	3	20	20	20				
80	3	20	40	20				
100	3	30	40	30				
120	3	40	40	40				
100	5	20	20	20	20	20		
120	5	20	30	20	30	20		
140	5	40	20	20	20	40		
160	5	40	20	40	20	40		
180	5	40	40	20	40	40		
200	5	40	40	40	40	40		
220	7	40	20	40	20	40	20	40
240	7	40	20	40	40	40	20	40
260	7	40	40	40	20	40	40	40
280	7	40	40	40	40	40	40	40

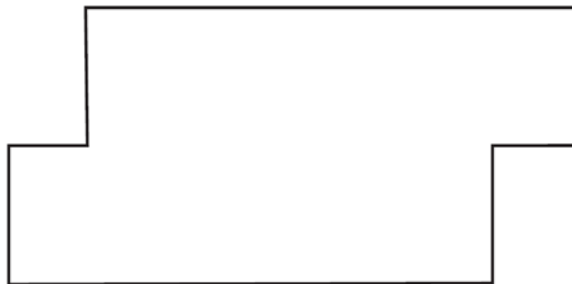
# Cross-laminated timber groove profiles\*



<b>Double groove and rebate</b>	
height	140-280 mm (in steps of 20 mm)
groove depth	20 mm
groove height	20 mm
rebate depth	50 mm
rebate height	20 mm



<b>Double tongue and groove with rebate</b>	
height	120-280 mm (in steps of 20 mm)
groove depth	15 mm
groove height	-
rebate depth	50 mm
rebate height	20 mm



<b>Shiplap edge</b>	
height	60-280 mm (in steps of 20 mm)
groove depth	-
groove height	-
rebate depth	50 mm
rebate height	50 % of the total height

\*diagram  
Other profiles on request.

# Joinery

<b>Machine Equipment</b>	Hundegger K2-Industry	
<b>Labeling</b>	Individual label	
<b>Optional Component Inscription</b>	Project name	Ink jet and marking system
	Component number	
	Markings	
<b>File Format</b>	.BVX, .BVN	

# Imprint

**Mosser Leimholz Gesellschaft m. b. H.**

**Company headquarters & postal address:**

Fohlenhof 2

A-3263 Randegg

+43 7487 62 71-0

[office@mosser.at](mailto:office@mosser.at)

**Register court:** District Court of St. Pölten

**Commercial register number:** FN93662p

**Sales tax ID number:** ATU20146606

**Chamber affiliation:** Member of the Austrian Wood Industries Association

**Legal notice:**

The information on the Internet regarding the Mosser Group is continuously checked and updated. Nevertheless, incorrect information may be included unintentionally. Therefore, liability or a guarantee for the topicality, correctness and completeness of the information provided cannot be assumed. All decisions which are based on the information contained on the Internet concerning the Mosser Group are solely the responsibility of the user. The Mosser Group does not accept any liability for direct, concrete or any other damage which arises as a result of this information. The content and structure of the Mosser website are copyrighted. Duplication of information or data, particularly the use of text, sections of text or images, requires permission from the Mosser Group.

Form number: QM\_QB\_0009

Version number: .05

Description: Produktdatenblatt BSP\_ENG

Creator: Daniela Heigl

Approver: Martin Bruderhofer

Update: 19.11.2024