

#### **PRODUCTS**

7 · 2020

#### **PURCHASING OF ROUND TIMBER**

PAGES 8 - 13



SAWN TIMBER

PAGES 14 - 17



PLANED PRODUCTS
PAGES 18 - 23



**GLUED LAMINATED TIMBER** 

PAGES 24 - 31



**JOINERY** 

PAGES 32 - 37



CLTPLUS PAGES 38 - 45





## TIMBER – IS PART OF OUR HISTORY

#### 1932

Peter Theurl purchases the Weilerhof, which included a Venetian saw.

#### 1970

Relocation

#### 1977

Construction of the first heating plant with four connected drying chambers.

#### 1982

Construction of a planing mill.

#### 1995

Hannes and Stefan Theurl take over the management of the company.

#### 2003

Commissioning of a biomass power plant to generate green electricity.

#### 2004

Renovation of the sawing hall with state-of-the-art cutting technology.

#### 2006

Foundation of Theurl Holzindustrie GmbH and construction of a glulam plant.

#### 200

Installation of a joinery service centre.

#### 201

Construction of a planing mill and log wood centre for strong and weak wood.

#### 2014

Installation of a new saw line and refurbishment of the headquarters.

#### 2017

Expansion of the laminated timber plant.

Construction of a double press, and modernisation of the logistics division.

#### 2019

Construction of a CLT workshop. Theurl Timber Structures GmbH was founded.

#### 2020

Commissioning of a CLT workshop and production of the first element CLTPLUS





## WOOD AN ALLROUND SUCCESS

East Tyrol is a green, leafy paradise. When our purchasers walk through the forests with the forest owners and foresters to see which trees are to be felled, they are always impressed by the strength of these lean giants. It is the silence of the forest that they appreciate. Our purchasers then look from trunk to trunk, internally assess the suitability of the mountain timber, and make a purchase. Thanks to state-of-the-art technology, the process speeds up after that.

Fine-grained round timber is felled in an environmentally-friendly way, in accordance with the intergenerational agreement. Only using sustainable resources is one of THEURL's guiding principles.

QUALITY CRITERIA	saw-able rou preferably fir	ınd timber, ne-grain Alpine timber
	Wood type:	Spruce, fir, larch
	Length:	4 m; 3 m accompanying
	Diameter:	Tail-end 130 mm upwards



## PROCESS OF PURCHASING ROUND TIMBER

- 1. Make an appointment
- 2. Visit the wood area
- 3. Make an offer
- 4. Conclude the purchase contract
- 5. Schedule the batch via the THEURL Round Timber App
- 6. Load the round timber
- 7. Enter the estimated quantity in the THEURL Round Timber App
- 8. Create an electronic delivery note
- 9. Delivery of the wood to the sawmill
- 10. Batch acceptance via the THEURL Round Timber App at the terminal
- 11. 3D measurement of the trunks
- 12. Round timber sorting, including trunk screening
- 13. Create measurement report
- 14. Billing with timber credits









#### **SAWN TIMBER**

Sawn timber is shaped round timber. Fine-grained Alpine spruce wood is cut parallel to the trunk axis. This, and the careful drying, guarantee wood products of perfect shape for every application. The final inspection is carried out by highly-experienced employees, who sort the sawn timber into quality classes.



#### Laths

Type of wood	Thickness mn	n Width mm	Length m	Unit	III - IV	III - IV - V	IV - V
Spruce	25	40 / 50 / 60	4	per m³			
Spruce	30	40 / 50 / 60 / 80	4	per m³			
Spruce	40	40 / 50 / 60 / 80	4	per m³			
Spruce	50	50 / 60 / 70 / 80 / 100	4	per m³			
Spruce	60	60 / 80 / 100 / 120 / 140	4	per m³			

#### Scantlings

Type of wood	Thickness mm	Width mm	Length m	Unit	III - IV	III - IV - V	IV - V
Spruce fresh	80 / 100	80 / 100	4	per m <sup>3</sup>			

#### Sawn timber, prismatic fresh

Type of wood	Thickness mm	Width mm	Length m	Unit	0-V	III - IV	III - IV - V	IV - V
Spruce fresh	17	75 / 95	3 - 4	per m³				
Spruce fresh	17	115	4	per m³				



#### Sawn timber, narrow

Type of wood	Thickness mm	Width mm	Length	Unit	III-IV	III-IV-V
Spruce	24	80-160	4	per m³		



#### Sawn timber, wide

Type of wood	Thickness mm	Width mm	Length m	Unit	III - IV	III - IV - V	IV - V
Spruce	24 / 30	160 +	4	per m³			
Spruce	40	160 +	4	per m³			
Spruce	50	160 +	4	per m³			



#### Sawn timber, prismatic

Type of wood	Thickness mm	Width mm	Length m	Unit	0 - IV	III - IV	III - IV - V	IV - V
Spruce	24 100 /	120 / 150 / 160 / 18	0/200 4	per m³				
Spruce	30 10	0/120/150/180/	200 4	per m³				
Spruce	30	300	4	per m³	-			
Spruce	40 / 50	245	4	per m³				
Spruce	40	360	4	per m³	-			

■ The sawn timber is available in the defined quality classes!

The sawn timber is available in the defined quality classes!

## THEURL NATURE REFINED VISIBLE ELEGANCE

In our planing mill, state-of-the-art technology is used to process the planed timber, form boards, strip flooring and sawn timber. A powerful planing machine smooths rough spruce and larch boards, and brings the wonderful fine-grain wood structures to light.

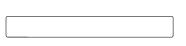
## PLANED PRODUCTS



#### **PLANED PRODUCTS**

Only monitored, pre-sorted sawn timber of the best quality is processed in our planing mill. The most finely-tuned planing heads refine natural products, and reveal the true beauty of the wood grain. Fine-fibred planed items with smooth surfaces, which meet the highest design requirements both inside and outside.

#### Planed boards S4S





Type of wood	Thickness mn	n Width mm	Cover width mm	Length m	Pieces / pack	Unit	Α	AB	В	ВС
Spruce	19	115 / 145	110 / 140	4	540 / 385	per m²				
Spruce	19	175 / 195	170 / 190	4	330	per m²				
Spruce	23	145 / 175	140 / 170	4	336 / 288	per m²				
Larch	19	145	140	4	385	per m²				
Larch	23	145	140	4	336	per m²				
Larch	31	145	140	4	224	per m <sup>2</sup>				

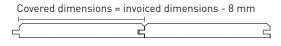
#### Chamfer cladding (with 4 mm chamfer)





Type of wood	Thickness mm	Width mm	Cover width mm	Length m	Pieces / pack	Unit	Α	AB	В	ВС
Spruce	19	115	107	4	540	per m²				
Spruce	19	145	137	4	385	per m²				
Spruce	19	175 / 195	167 / 187	4	330 / 275	per m²				
Larch	19	145	137	4	385	per m²				

#### Chamfer cladding both sides usable (with 4 mm chamfer)





Type of wood	Thickness mm	Width mm	Cover width mm	Length m	Pieces / pack	Unit	Α	AB	В	ВС
Spruce	19	145 / 155	137 / 147	4	420	per m²				
Spruce	23	145 / 175	137 / 167	4	336 / 288	per m²				
Larch	23	145	137	4	336	per m²				

#### Ship floor, profiled on 2 sides

Covered dimensions = invoiced dimensions - 8 mm

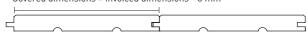




Type of wood	Thickness mm	Width mm	Cover width mm	Length m	Pieces / pack	Unit	Α	AB	В	ВС
Spruce	23	115	107	4	405	per m²				
Spruce	31	155 / 175	147 / 167	4	238 / 204	per m²				
Spruce	41	175	167	4	156	per m²				
Larch	23	145	137	4	308	per m²				
Larch	31	145	137	4	224	per m²				

#### Block wall cladding, 2 mm chamfered edges

Covered dimensions = invoiced dimensions - 8 mm

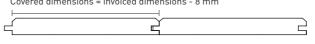




Type of wood	Thickness mm	Width mm	Cover width mm	Length m	Pieces / pack	Unit	Α	AB	В	ВС
Spruce	19	175	167	4	330	per m²				
Spruce	24	145 / 175	137 / 167	4	330 / 288	per m²				

#### Raw cladding (band saw cutting), 1 mm chamfered edges

Covered dimensions = invoiced dimensions - 8 mm

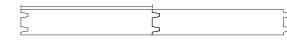




Type of wood	Thickness mm	Width mm	Cover width mm	Length m	Pieces / pack	Unit	Α	AB	В	ВС
Spruce	20	175	167	4	330	per m²				

#### Fire portection cladding

Covered dimensions = invoiced dimensions - 10 mm



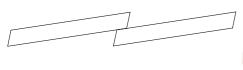


Type of wood	Thickness mm	Width mm	Cover width mm	Length m	Pieces / pack	Unit	Α	AB	В	BC
Spruce	31	175	165	4	204	per m²				
Spruce chamfere	ed 41	175	165	4	156	per m²				

<sup>■</sup> The planed goods are produced to the usual high quality! · Invoiced dimensions = dimensions incl. tongue!

<sup>■</sup> The planed goods are produced to the usual high quality! · Invoiced dimensions = dimensions incl. tongue!

#### **Rhomboid cladding**

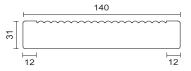






Type of wood	Thickness mm	Width mm	Cover width mm	Length m	Pieces / pack	Unit	Α	AB	В	ВС
Larch	19	145	140	4	385	per m²				
Larch	24	75	68	4	720	per m²				

#### Planed boards ribbed





Type of wood	Thickness mm	Width mm	Cover width mm	Length m	Pieces / pack	Unit	Α	AB	В	ВС
Larch	23	145	140	4	336	per m²				
Larch	31	145	140	4	224	per m²				

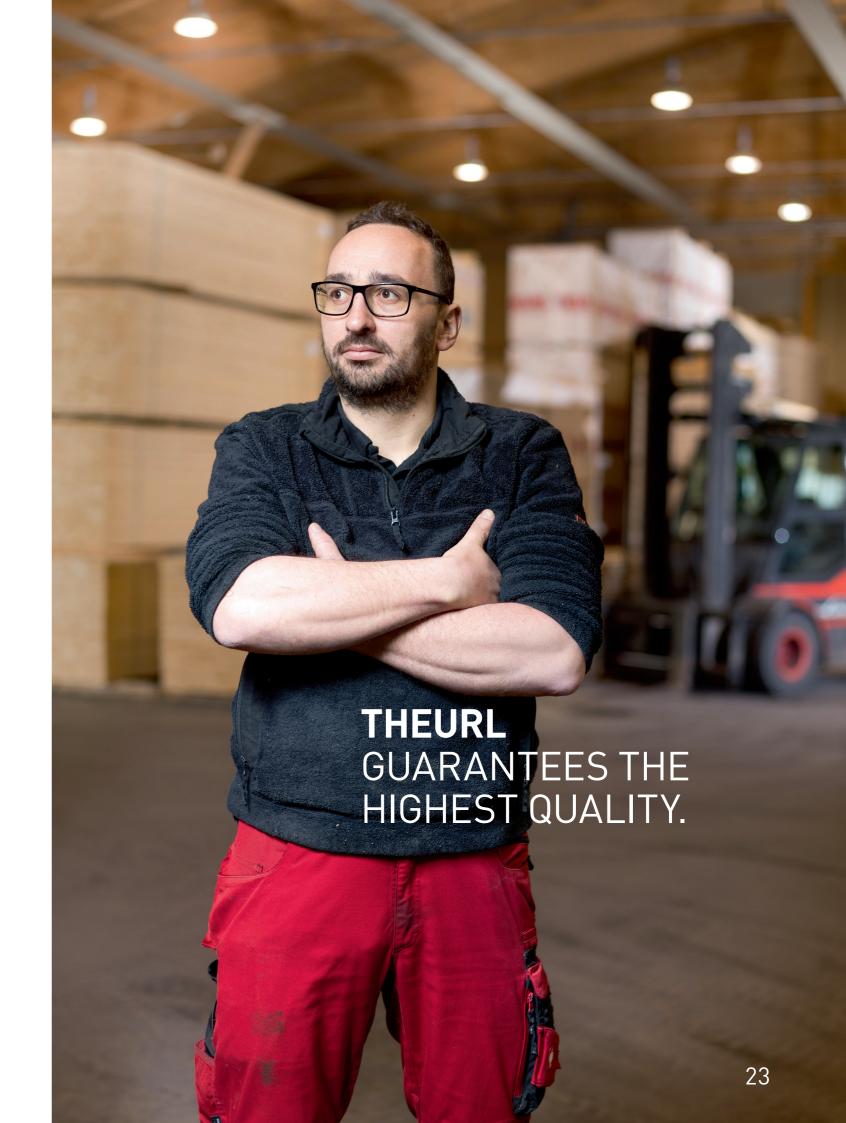
#### Level sawn timber; tongue and groove (on request)

Covered dimensions = invoiced dimensions - 8 mm



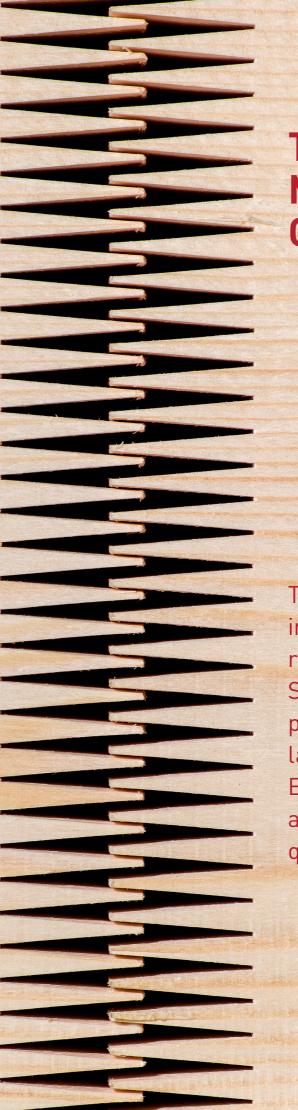


Type of wood	Thickness mm	Width mm	Cover width mm	Length m	Pieces / pack	Unit	Α	AB	В	BC
Spruce	22	145	137	4	350	per m²				



## GLUED LAMINATED TIMBER





THEURL
MORE THAN STANDARD
CLEVER SOLUTIONS

The challenging living conditions in the mountains strengthen the resilience of the spruces.

Spruce wood is therefore the perfect material for our glued laminated timber production.

Easy workability and high strength are the key characteristics and qualities of glued laminated timber.





#### **GLUED LAMINATED TIMBER**

THEURL glued laminated timber is made of at least two lamellas. The load capacity is much greater than that of conventional timber, due to the layered structure. Another quality characteristic is the selected knotless wood, which is glued parallel to the fibre and planed on four sides, resulting in aesthetically pleasing functional components.

The automatic testing of each individual lamella is standard. The exact strength class is determined by the Microtec GOLDENEYE, pursuant to Önorm EN 14081-1.



#### **ORDER-RELATED JUST-IN-TIME PRODUCTION**

**PRODUCT CHARACTERISTICS** Wood type: local spruce (larch on request)

Thickness of lamellas: 40 mm

Wood moisture content: 11 % +/- 2,5 %

Surface: Visual or industrial quality, planed on 4 sides,

Chamfered edges

Strength class: GL 20h, GL 24h, GL 28c, GL 30c, GL 32c

**QUALITY CHARACTERISTICS** Product standard: EN 14080:2013

Finger jointing: EN 385:2002

Sorting: mechanically according to DIN 4074-4 and

EN 14081-1

Gluing: MUF melamine resin urea-based glue,

weather-proof, transparent glued joints

SUPPLY RANGE Width:

 Width:
 60 - 280 mm

 Height:
 120 - 1280 mm

 Length:
 Min. 6 m - max. 18 m

Cross	ection	Q	uality	Strength class						
Width mm	Height mm	View	Industry	GL 20h	GL 24h	GL 28c	GL 30c	GL 32c		
			Sort class	T 10	T 14	T 22 (T 14)	T 22 (T 14)	T 26 (T 14)		
60	120 - 480									
80	120 - 1280									
100	120 - 1280									
120	120 - 1280									
140	120 - 1280									
160	120 - 1280									
180	120 - 1280									
200	120 - 1280									
220	120 - 1280									
240	120 - 1280									
280	120 - 1280									

On request: Strength class GL 28h, GL 30h, GL 32h

Width 60 mm

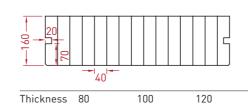
#### **GLULAM CEILING ELEMENTS**

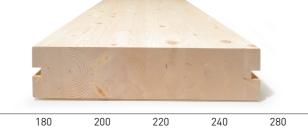
THEURL produces ready-to-fit ceiling elements with various profiles.

Dimensional accuracy and perfect surfaces help to reduce construction time and costs.

Quality:	GL 24h
Standard dimension	IS .
Height:	400 / 600 mm, maximum width 1200 mm
Thickness:	80 - 280 mm
Length:	6 - 18 m

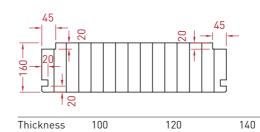
#### Glulam elements, single groove, type 1





Covered dimensions (= invoiced dimensions): 600 mm | Groove: 20 mm

#### Glulam elements, single groove and rabbet joint, type 2





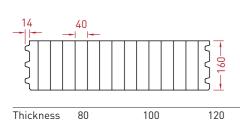
Covered dimensions (= invoiced dimensions): 600 mm | Groove: 20 mm | Rabbet above: 20 x 45 mm

140

160

160

#### Glulam elements, double tongue and groove, type 3

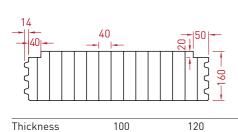




Covered dimensions: 580 mm | Invoiced dimensions: 600 mm | Groove: 14 mm

#### Glulam elements, double tongue and groove with rabbet joint, type 4

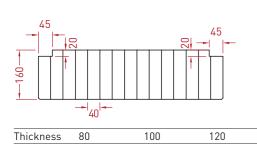
140





Covered dimensions: 580 mm | Invoiced dimensions: 600 mm | Groove: 14 mm | Rabbet above: 20 x 40 mm and 20 x 50 mm

#### Glulam elements, with rabbet joint, type 5





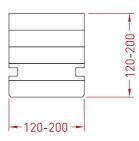
Covered dimensions (= invoiced dimensions): 600 mm

Rabbet above: 20 x 45 mm (thickness 100 - 240 mm) | Rabbet above: 20 x 20 mm (thickness 80 mm)

140



#### Glulam natural elements, single groove, type 1





Standard dimension

Thickness:	120, 160, 200 mm
Width:	140, 160, 180, 200 mm
Lenath:	6 – 18 m



Standard	dimension	
Stariuaru	ullilelisioli	

Thickness:	120, 160, 200 mm
Width:	140, 160, 180, 200 mm
Length:	6 – 18 m

#### **Block planks**

There is hardly anything more typical of the special Alpine flair than these block planks. With their humidity-regulating heat, sound and fire protection values, they create a comfortable indoor climate. On each side, they have a ready-to-install visible surface, which allows this product to have several variations. Thanks to the ready-to-install delivery, it is easy to assemble the components quickly and precisely.





Strength class:	C24 (pursuant to 338)	
Ouality:	Visual quality	

Ctoodood	ما:سم	:	
Standard	aime	nsions	

Thickness:	118, 158, 198 mm
Height:	220 mm
Length:	6 – 18 m





### THE JOINERY SERVICE - A QUANTUM LEAP!

Our joinery service centre combines traditional manual work with modern technology. It serves as an interface through which we can fully meet the needs and requirements of our customers.

Initial consultation: Your project is accepted, a plan is drafted, and the costs are calculated.

The wooden components then take shape in the joinery station.

The state-of-the-art joinery station allows millimetre-precise production in no time. This enables a high degree of flexibility thanks to fast and optimal construction while keeping to the deadlines, as well as through calculable cost savings and top-quality construction elements.



#### HARD FACTS ABOUT THE JOINERY STATION

DATA PREPARATION	We convert your project data into CNC machine data. SEMA, Dietrich's and cadwork. Other kinds of processing are also possible.
WOODEN ELEMENTS	max. length 18 m max. height 1250 mm max. width 280 mm
JOINERY MACHINES	Hundegger K2i 1250 ROBOT Hundegger K2i 1250 5 axles Hundegger K2 625 5 axles



#### **EVERYTHING UNDER ONE ROOF**

With computer-assisted manufacturing, THEURL meets the highest precision and quality requirements of modern timber construction. In our assembly facilities, we carefully and expertly produce individual wooden structures measuring up to 18 m in length and 1.25 m in height. The years of experience of our employees and the high precision of the three joinery machines play an important role in this. They guarantee sustainable customer service. Specifically, everything from the realisation of the design as ready-to-install and millimetre-accurate components, to the quality control at the end of processing, is covered.

#### **OUR JOINERY SERVICE**

CONSULTANCY	Representation of the offer.					
	Competent advice in the planning phase.					
	Calculation for the offer.					
	Preliminary calculation by means of the THEURL calculation.					
	Reliable processing and development.					
DATA PREPARATION	SEMA, Dietrich's and cadwork.					
	Other kinds of processing are also possible.					
JOINERY MACHINES	Hundegger K2i 1250 ROBOT					
	Hundegger K2i 1250 5 axles					
	Hundegger K2 625 5 axles					
WOODEN ELEMENTS	max. length 18 m					
	max. height 1250 mm					
	max. width 280 mm					
SURFACE TREATMENTS	Chopping					
AND REFINING STEPS	Brushing					
	Painting					
	are optionally available from our partner companies.					
PRE-ASSEMBLY	with connectors; from the insertion of the connectors to the ready-to-install constructions.					
LOGISTICS	Timely delivery of the ready-to-install constructions with prepared installation plans.					



# CROSS LAMINATIED LIMBER

## THEURL THE FUTURE BEGINS WITH CLTPLUS

Energy-efficient, durable, recyclable, extremely resistant and CO2 neutral: Could a construction material be any more versatile? At least three layers of cross-laminated board make CLTPLUS an almost universally applicable, particularly stable product: the large-format solid wood CLTPLUS boards are used to form wall, ceiling or roof elements. The high level of pre-fabrication permits short construction times without drying phases.CLTPLUS in a quality that does not require masking also creates a comfortable atmosphere and high room quality.

#### **CLTPLUS**

CLTPLUS is a stable and reliable construction material prefabricated to measure individually and precisely in the factory. The high degree of pre-fabrication make it a high-tech construction material which is both economical, stable and natural at the same time. Its good ecobalance and ability to store CO2 really set it apart from its competitors.



#### **COMPONENTS FOR WALL, CEILING AND ROOF**

OPTICAL QUALITY	Suitable for visible surfaces Enhanced industrial quality ndustrial quality						
NARROW SIDE ADHESION	The individual timber layers are first glued to form a one-layer board to create high air density. At the same time, this procedure increases the stability and enhances the shear stiffness and earthquake protection.						
SURFACE PROCESSING	sise the natural str In visible componer	We sand our CLTPLUS elements in the grain direction to emphasise the natural structure of the high-quality mountain timber. In visible components, this procedure optimally emphasises the qualities of the surface.					
JOINERY	Millimeter precisio	Millimeter precision with 5-axis CNC joinery machine					
SUPPLY RANGE	Type of wood Wood moisture con Panel structure  Thickness Length	3, 5, 7 or 8 layers Single-layer panels bonded cross-wise on the surfaction side and narrow siden 60 - 320 mm 8 - 16 m (in 10 cm increments)					
	Width Grid dimensions	2,25 - 3,50 m 225 cm 245 - 295 cm (in 10 cm increments) 310, 330 and 350 cm					



#### **STANDARD STRUCTURES**

#### C-panel · wall

Element type	Thickness (mm)	Eleme (mm)	nt structur	e/lamella							
		С	L	С	L	С	L	С		<b>Structu</b> Top laye	re er in spruce
C3	60	20	20	20						Central	layer in spruce
	80	30	20	30						fir, pine	
	90	30	30	30							
	100	30	40	30							
	120	40	40	40						<b>I</b> III C3	[         C5
C5	100	20	20	20	20	20				CS	CJ
	120	30	20	20	20	30				7	
	140	30	30	20	30	30			_		
	160	40	20	40	20	40					
	180	40	30	40	30	40					
	200	40	40	40	40	40					

#### L-panel · ceilings and roofs

Element type	Thickness (mm)	Elemen (mm)	t structur							
		L	С	L	С	L	С	L	_	
L3	60	20	20	20						
	80	30	20	30						
	90	30	30	30					L3	
	100	30	40	30						
	120	40	40	40						
L5	100	20	20	20	20	20			_	
	120	30	20	20	20	30			L5	L5
	140	40	20	20	20	40				
	160	40	20	40	20	40				
	180	40	30	40	30	40				
	200	40	40	40	40	40			=	
L5 · 2	160	30 · 2	40	30 · 2					L7	L7
L7	180	30	20	30	20	30	20	30		
	200	20	40	20	40	20	40	20		
	220	40	20	40	20	40	20	40		
	240	30	40	30	40	30	40	30	L8 · 2	
L7 · 2	180	30 · 2	20	20	20	30 · 2				
	200	30 · 2	30	20	30	30 · 2				
	220	40 · 2	20	20	20	40 · 2			7	
	240	40 · 2	20	40	20	40 · 2		_		
	260	40 · 2	30	40	30	40 · 2				
	280	40 · 2	40	40	40	40 · 2				
L8 · 2	300	40 · 2	30	40 · 2	30	40 · 2				
	320	40 · 2	40	40 · 2	40	40 · 2				

Alternative formats possible upon request. The double-length layers are suitable for particularly stringent, static requirements.



#### THE NEW CLTPLUS TECHNOLOGY

The high-performance construction material with great potential. At least three layers of cross-laminated board make CLTPLUS an almost universally applicable stand-out product.

#### High stability

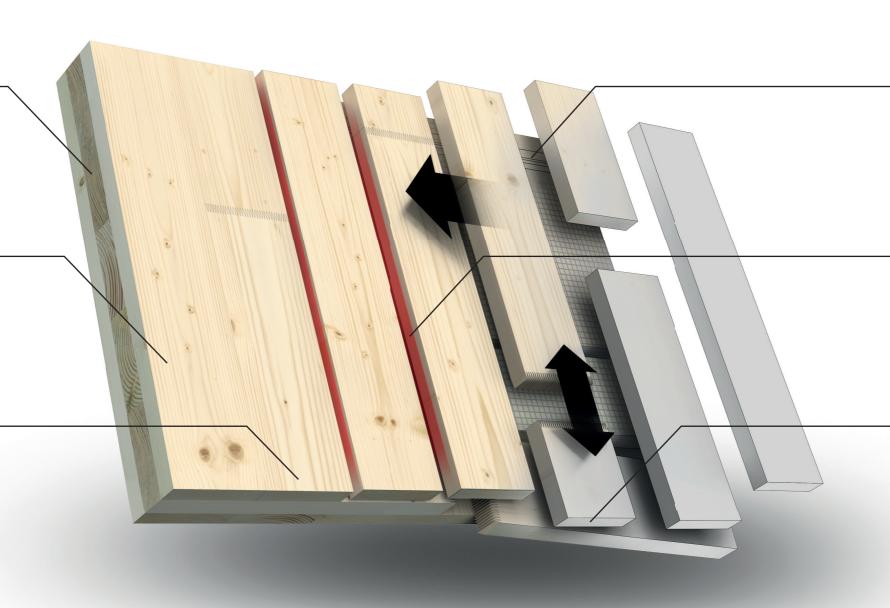
The timber layers are pressed with alternating core sides in the central positions. This means that higher form stability and dimensional accuracy is obtained for the elements.

#### Surface processing

We sand our CLTPLUS elements in the grain direction to emphasise the natural structure of the high-quality mountain timber. In visible components, this procedure optimally emphasizes the qualities of the surface.

#### **Pressing power**

For an optimal and even pressing result, our CLTPLUS components are manufactured by using the latest pressing technology with a pressing power of 1 N/mm<sup>2</sup>.



#### THEURL inside coding

Each timber layer receives an individual code which is invisible from the outside. This makes the origin of each component traceable for life.

#### Narrow side adhesion

The individual timber layers are first glued to form a one-layer board to create high air density. At the same time, this procedure increases the stability and enhances the stiffness and earthquake protection.

#### Bending stiffness

Various timber layer thicknesses in the layer structure adapt the bearing capacity of the component to the requirements of the statics. The component structure, which is specifically adapted to the load, reliably absorbs the forces.

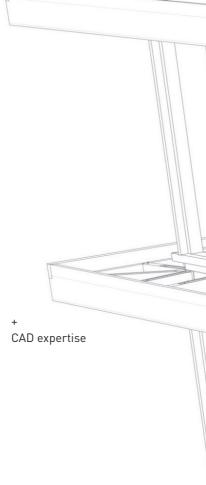
#### STRUCTURAL TIMBER SOLUTIONS FOR ALL COMPONENTS

Together, CLTPLUS and cross-laminated timber are an unbeatable team. Theurl offers both products as a complete system from a single source. In this way, interfaces can be optimally coordinated from as early on as in the planning phase, and nothing is in the way of the millimetre-precision connection of the components. This leads to high-tech complete timber construction solutions which are technically and economically convincing. We offer our customers one timber construction solution – from technical knowledge anddesign to production and logistics. The shared willingness to shift the limits of the feasible makes us a strong industrial partner for timber construction.

+ Precision

Time savings

One contact person philosophy





#### **OUR JOINERY SERVICES**

Thanks to our cutting-edge joinery machines, CLTPLUS elements can be quickly and precisely transformed into every planned shape imaginable. Together with our customers, we aspire to achieve new dimensions in timber construction..



#### CAD / CAM expertise

We design on all standard CAD programmes – SEMA, Dietrich`s, CADwork und HSB.

#### Panel dimensions

Max. length 16 m · Max. width 3,50 m · Max. thickness 320 mm

#### Joinery machine

Hundegger Gantry Machining Centre for Industry 5-axis universal milling unit

5-axis circular saw

5-axis chain saw

#### Joinery services

- + Formatting at right angles to the panel surface
- + Ceiling and wall timber framing cut at right angles for the panel surface
- + Machined on both sides
- + Outlets and openings for beams, purlins and rafters
- + Deep-hole drilling electrical installation
- + Post-machining of corner curves



SUSTAINABLE
FOREST MANAGEMENT
SECURES TIMBER SUPPLIES
FOR FUTURE GENERATIONS.

RESPONSIBLE
AND SUSTAINABLE USE
OF RESOURCES
ARE PART OF OUR
CORPORATE PHILOSOPHY.



#### **COMPETENCE CENTER**



**Discover a Competence Center near you.**More detailed information is available at www.theurl-holz.at

#### Extensive expertise combined with state-of-the-art technology

Pre-fabrication, precision, and speed are strong long-term arguments for timber construction. Optimisation of construction processes is ongoing and complex planning and decision-making processes for everyone involved are all necessary for a perfect end result. Expertise and in-depth knowledge of construction processes and interfaces are the basis on which innovative timber constructions and suitable high-tech constructions can be planned. This is where we create added value. Investment in our expertise and regular communication amongst our specialists.

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