PFEIFER

CLT

CROSS LAMINATED TIMBER

pfeifergroup.com

Pfeifer and wood: a combination that has embodied quality and durability since 1948. As a family-run company, we think in terms of generations. This is precisely why we see change as a constant and actively and decisively address new market needs. With the fascinating material CLT, we are building for the future with passion and conviction.

We connect people,
nature and technology.
For better solutions made of wood.

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When PFEIFER CLT panels are produced at a visual-grade quality, they delight residents with pleasantly warm wooden surfaces and serve as a visible expression of a contemporary attitude to life: living sustainably and close to nature.

Ecology & Economy Combined

CLT – The Incredible Potential of Wood

Cross Laminated Timber (CLT) takes timber construction to a new level. The cross-glued wooden panels combine practical advantages, such as a fast, dry and precise construction method, with enhanced living qualities and distinct ecological benefits. This makes CLT the smartest technological advancement since people began building with wood. For today, for tomorrow and for many generations to come.

NEW DESIGN PERSPECTIVES

Wood has a long history as a construction material. Its refinement into CLT opens up new dimensions in architectural solutions, including bandwidth, height and aesthetics. Thanks to this innovative solid wood product, the timber construction industry has experienced a unique dynamic in recent years. Planners, architects and investors recognise the potential of CLT to create individualised, flexible and high-quality projects. Trends such as modularisation in urban architecture, combined with the increasing demand for natural materials, have contributed to the revival of timber construction. With its defined physical and mechanical properties, PFEIFER CLT offers the highest planning reliability, making the work of architects and contractors much easier.

PFEIFER CLT enables a forward-thinking architectural approach, combining efficiency, naturalness, comfort and ecology.

Wood is growing – across Europe, more wood is being grown than harvested. Refined into PFEIFER CLT, wood becomes the most environmentally friendly material.

THE ENTIRE SPECTRUM OF BUILDING CONSTRUCTION

Entire buildings made of solid wood, sections combined with other materials, and sophisticated interior design: PFEIFER CLT makes a contemporary and sustainable statement. The highly prefabricated panels perform excellently in a wide range of applications, from single-family houses to multi-storey buildings. The CLT construction method plays a crucial role in revitalising rural and urban areas. It opens up new opportunities in timber construction for dense conurbations with its low weight, precise prefabrication and dry application. Wall, ceiling and roof elements can be flexibly combined and used for energy-efficient or passive-energy buildings in a variety of sizes, building types and roof shapes.

HIGH-PERFORMANCE CONSTRUCTION MATERIAL

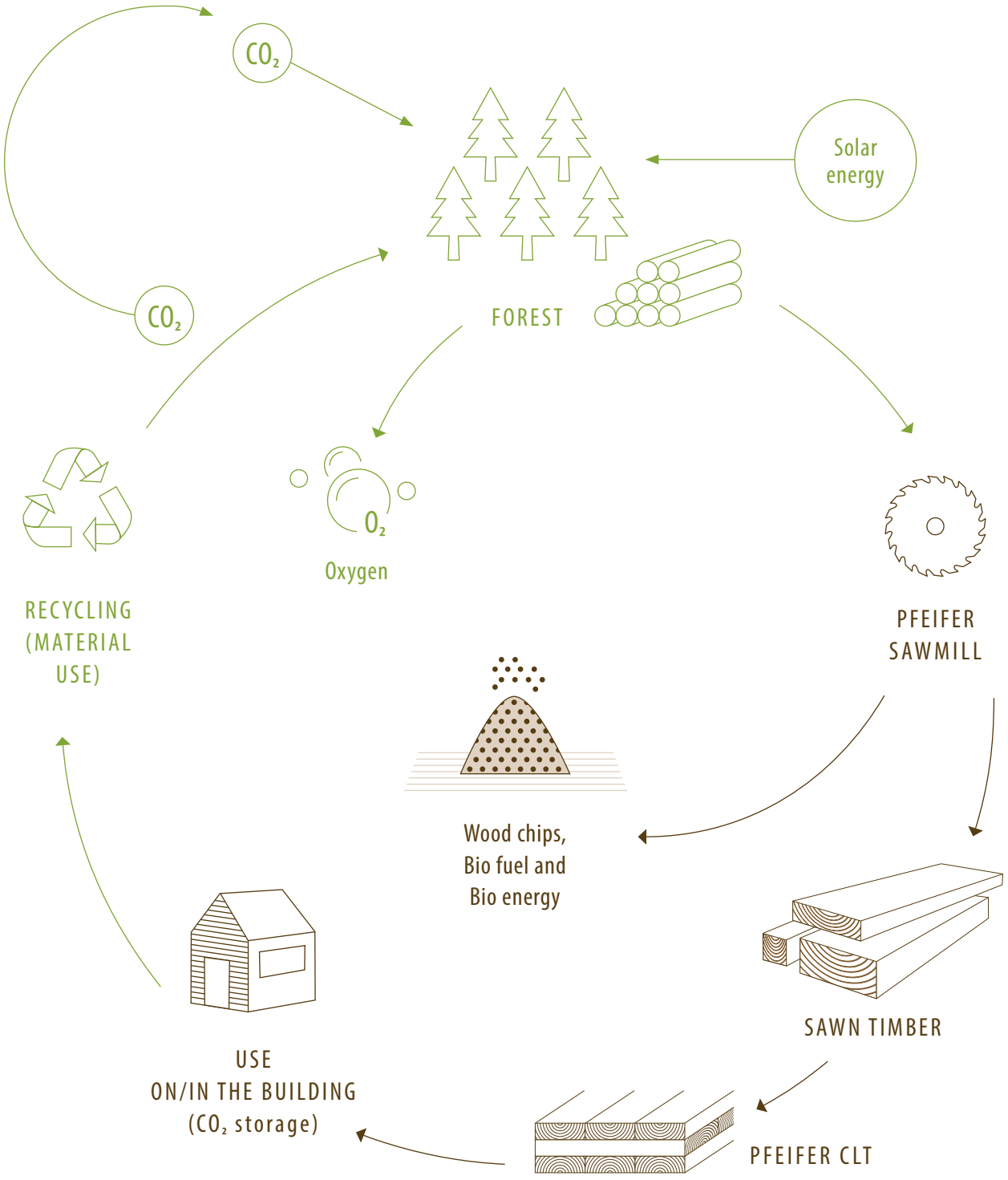
The finished CLT system stands out with its high level of prefabrication, short construction time and ease of assembly. Additionally, the comparatively low component thickness provides additional space savings. The crosswise construction of solid softwood board layers creates high dimensional stability and enables biaxial load transfer, making this method suitable even in earthquake-prone areas. The monolithic wooden panels meet all fire protection requirements, provide excellent sound and heat insulation and guarantee solid construction with high durability and value.

CLT also offers ideal conditions for a film-free and diffusion-open wall structure. This creates a comfortable and balanced indoor climate. Solid wood regulates the room humidity, acts as an insulator in summer and serves as a heat accumulator in winter.

BUILDING WITH AN ECO-BONUS

In addition to its practical advantages, there are significant climate protection and environmental benefits to the technology of formaldehyde-free glued solid wood components. Unlike conventional building materials, wood regrows faster than it is harvested throughout Europe, and it is a natural carbon store. Timber products store large amounts of CO_2 and actively contribute to climate protection. The raw material for CLT comes from sustainable forestry, helping forest owners maintain healthy forests.

When properly constructed, there is no natural limit to the lifespan of solid wood buildings, and centuries-old wooden farmhouses are proof of this enduring reliability. At the end of its lifetime, PFEIFER CLT can be fully recycled or disposed of in an environmentally friendly way. Another advantage: PFEIFER CLT's lightweight nature compared to concrete and steel facilitates easier transport and handling, saving both energy and costs.



100 % RECYCLING

The processing of the valuable raw material wood into PFEIFER CLT follows a closed recycling chain based on the cascade principle. Pfeifer processes logs from sustainably managed forests in Central Europe into a comprehensive product portfolio. The use in structural timber construction extends the lifecycle of sawn timber, significantly enhancing its climate-relevant CO_2-binding capacity.

The future is building with PFEIFER CLT

The universal genius of wood in building construction

CLT is becoming a key player in all areas of building construction. Especially in municipal or commercial flagship projects and in multi-storey residential construction, complete or partial solutions with CLT provide a fast and cost-effective construction method. In addition, urban densification is increasingly becoming a focus of modern development. Here, the prefabricated, dry construction method with short construction times and a relatively light material offers significant advantages over conventional building materials. In single-family homes, CLT takes residential quality to a whole new level. The hotel industry also benefits from the aesthetic and unique characteristics of PFEIFER CLT.

Municipal construction projects
Efficiency with a feel-good character: municipal offices, schools, kindergartens, senior residences, intergenerational housing models, event venues, cultural or sports centres …

Commercial buildings / Office buildings
Reputation and workplace quality: corporate offices, headquarters, branches, open-space concepts, modular workplace, markets, logistics hubs …

Residential buildings / Residential complexes
When costs and speed matter: single- and multi-storey buildings of any size, densification projects, modular housing models, generational living, social housing, urban planning solutions ...

Family homes
Custom architectural options: single, double or terraced houses, partial or complete solutions with walls, ceilings and roofs, visual-grade wood, positive indoor climates and aesthetics …

Hotel industry
From boutique accommodation to 5-star resorts: encompassing all aspects of hotel construction, extensions, exterior and interior design, adventure living worlds, wellness environments …

Special constructions
Fast and economical construction for specific requirements: garden sheds, towers, trade fair booths, furniture, structural designs of all types …

PFEIFER CLT builds for solid living quality

It's not just about appearances

PFEIFER CLT impresses with its flexibility and versatility.
In practice, it meets the highest structural and aesthetic requirements
while also protecting the budget and the environment.

ARCHITECTURE

PFEIFER CLT offers virtually unlimited possibilities in construction concept, style and architecture while remaining fully compatible with other building materials. Solid wood panels are suitable for both interior and exterior walls as well as ceilings and roofs (without requiring a grid).

SHORT CONSTRUCTION TIME

The prefabricated PFEIFER CLT panels are delivered directly to the construction site by truck, where the construction team assembles them quickly, efficiently, and dryly.

SOUND PROTECTION

Due to their relatively large mass, PFEIFER CLT elements combined with appropriate superstructures exhibit excellent airborne and impact sound insulation.

ELECTROMAGNETIC RADIATION PROTECTION

When electrical installations are correctly implemented, the absorbing properties of PFEIFER CLT provide enhanced protection against electromagnetic radiation.

EARTHQUAKE-PROOF

The high rigidity of PFEIFER CLT elements, combined with suitable connectors, enables earthquake-resistant construction.

PLANNING SECURITY

Defined or standardised mechanical and structural-physical properties of PFEIFER CLT prefabricated parts ensure maximum planning reliability.

LIVING QUALITY

PFEIFER CLT elements are open to diffusion. Thus, film-free constructions are possible, which, together with appropriate winter and summer thermal protection, ensure a pleasant and balanced indoor climate all year round.

FIRE PROTECTION

PFEIFER CLT elements are characterised by high fire resistance (fire resistance class REI 30–90). Unlike other building materials, wood burns safely and predictably.

LIVING SPACE GAIN

Thanks to the comparatively slim wall and ceiling structures achievable with CLT elements, it is possible to increase the net living space.

SUSTAINABLE

At the end of a building's lifespan, the raw material in PFEIFER CLT can be completely and ecologically recycled.

PFEIFER CLT builds up the entire house

Components & Solutions

The crosswise bonding of board layers transforms directional wood into a highly solid building material with a panel effect. This material can be used as a wall, ceiling, or roof component, as well as a base panel or for special components. Planners and contractors can work flexibly with component solutions and formats to make targeted use of their respective advantages.

Base

- CLT raw panels

Standard / System

- Standard panels (formatted)
- Bearing panels
- CLT system ceiling
- Ribbed elements
- Box elements
- Wood-concrete composite elements

Individual

Walls
- Interior and exterior walls (load-bearing/non-load-bearing)
- Stiffening wall panels
- Apartment partitions
- Building partitions

Ceilings
- False ceilings
- Separating floors
- CLT system ceiling
- Platforms/Balconies
- Cantilevered areas

Roofs
- Flat roof
- Steep roof
- Canopies/cantilevered roof elements

Special components

The versatility of CLT opens up entirely new possibilities for creative and aesthetic solutions, inspiring the imagination of planners. PFEIFER is the ideal partner and supplier of high-quality components for unique applications. CNC-controlled joinery essentially removes any limits to the shape of components made from cross laminated timber.

A few examples
- CLT beams / wall-like beams
- Point-based constructions
- Flight of stairs
- Furniture manufacturing
- Facade elements
- Modules

WALL

PFEIFER CLT wall elements meet all static, structural and fire protection requirements. Fully prefabricated, wall elements with cut-outs for windows, doors and other installations are delivered to the construction site, ready for assembly. A CLT wall truly has everything built in.

Advantages

+ Can be used as exterior walls, interior walls and apartment partition walls
+ Biaxial load transfer effect: high vertical load transfer is possible. High horizontal load absorption for building reinforcement
+ Economical use in multi-storey residential and industrial buildings
+ High level of prefabrication, including all openings and outlets
+ Dry construction method
+ Domestic visual quality, offering a visual and tactile feel-good atmosphere
+ High flexibility for use in combination with other building materials

CEILING

The design of floor ceilings with PFEIFER CLT ensures self-supporting and dry construction methods. Large-sized, dimensionally stable components create a panel effect and can be mounted with finished visible surfaces for comfort and living quality. All standards concerning static, fire, and sound protection are fulfilled.

Advantages

+ Biaxial load transfer effect: ideal for load-bearing applications, such as adding storeys
+ Jointless installation, no large contraction joints
+ High level of prefabrication
+ Dry construction method
+ High thermal mass in winter / insulator in summer
+ Finished visible surfaces, perfect for floors or ceiling soffits

ROOF (FLAT ROOF/ SLOPED ROOF)

In principle, any roof shape can be realised with CLT. PFEIFER CLT roof structures meet all static, fire protection and sound engineering requirements. The excellent thermal insulation and storage properties of wood ensure a pleasant indoor climate all year round.

Advantages

+ Biaxial load transfer effect: enables overhangs and breakthroughs in new dimensions
+ Large span widths achievable even with slim and lightweight constructions
+ High level of prefabrication
+ Swift rain impermeability due to quick installation within a few hours
+ Dry construction method
+ High thermal mass in winter / Insulator in summer
+ Finished visible surfaces inside / pleasant wooden surfaces for comfort

PFEIFER CLT builds to the latest standards

Key Technical Data

PFEIFER CLT meets all the requirements for constructive timber construction. Learn more about the specific product characteristics and production method.

A Product Portrait of CLT

PFEIFER CLT is a large-format solid wood panel made of 3 to 15 layers of crosswise-glued wooden lamellas. Dried, strength- and quality-sorted, planed wooden lamellas made of European softwood and formaldehyde-free polyurethane (PU) adhesive are used.

Product designation
PFEIFER CLT Cross Laminated Timber

Application
Approval: 20/0023
Load-bearing and non-load-bearing components in buildings and timber structures, such as walls, ceilings and roofs

Use Class
NKL 1 and 2 (according to EN 1995)

Panel construction
3 to a maximum of 15 crossed and glued layers
(standard: 3 to 7 layers)

Layer variation
max. 3 fibre-parallel layers (≤ 90 mm) possible

Panel length: up to 14.50 m
Panel width: up to 3.10 m
Panel thickness: 60–280 (standard),
up to 320 mm on request

Lamella thicknesses: 20, 30 or 40 mm

Strength class of raw product
C24; a proportion of max. 10 % C16 is permissible (acc. to EN 338)

Surfaces
Industry Quality (IQ), Industry Visual Quality (ISQ) and Domestic Visual Quality (WSQ)

Wood types
European softwood

Wood humidity
10–15 % (at the time of delivery)

Dimensional stability
- Lengthwise and crosswise in panel plane: 0.01 % per % of change in wood humidity
- Perpendicular to the panel plane: 0.20 % per % of change in wood humidity

Adhesive
Polyurethane (PU) adhesive (formaldehyde-free) for finger jointing and surface bonding (acc. to EN 301 or EN 15425)

Weight
approx. 480 kg/m³ (for determining the transport weight)

Diffusion resistance
μ = about 60 (at u = 12 ± 2%)

Air tightness
Class 4 (acc. to EN 12207)
Airtight from 3 layers acc. to HFA report of 29.11.2019

Thermal conductivity
λ = 0.12 W/(m.K)

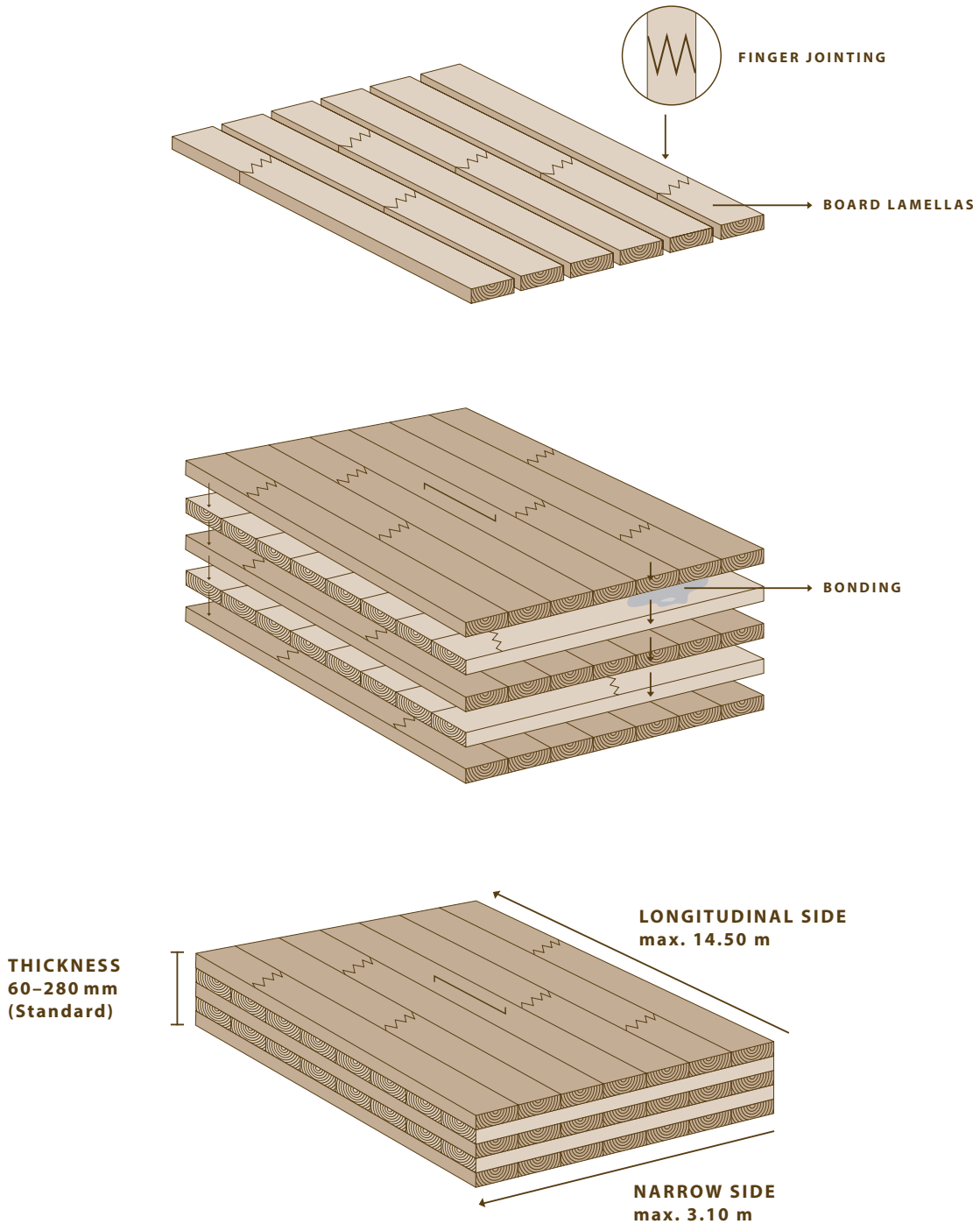
Specific thermal capacity
cp = 1600 J/(kg.K)

Fire behaviour
D-s2, d0 (according to EN 13501)

Fire resistance / mass burning rate
~ 0.7mm/min. (for rough calculations)

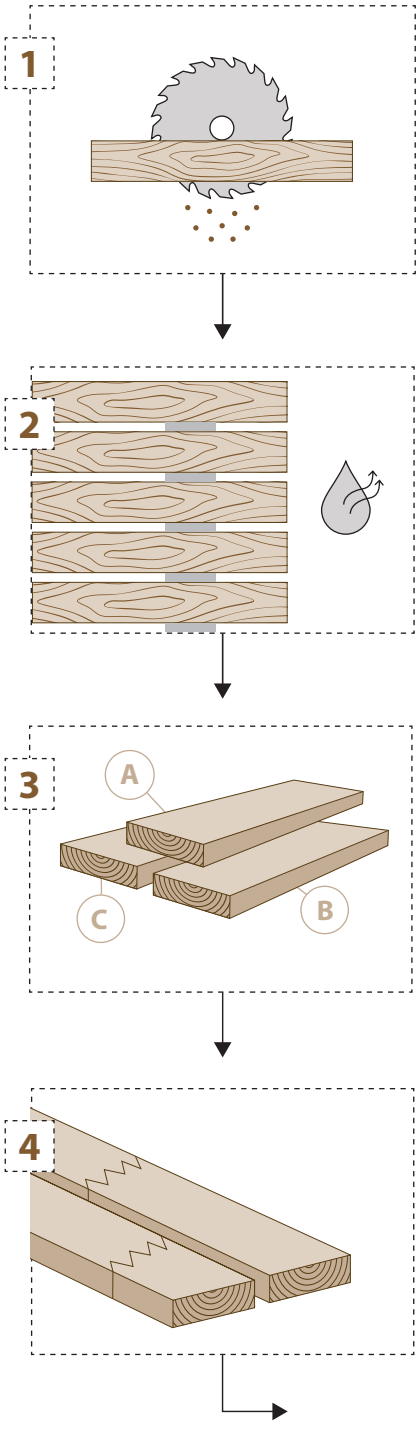
Recycling
Waste code: 17 02 01 (according to AVV)
Formaldehyde class: E1 Equalisation concentration 0.01 ppm (according to HFA report No. DLR 500038/2021 of 11/10/2021)

Basic principle of panel construction



Further explanations on the principle and layout of a PFEIFER CLT panel can be found on pages 18 and 19.

The production method: How PFEIFER CLT panels are made



SAWN TIMBER

Softwood is harvested in the forest and processed into boards at Pfeifer's own sawmill.

DRYING

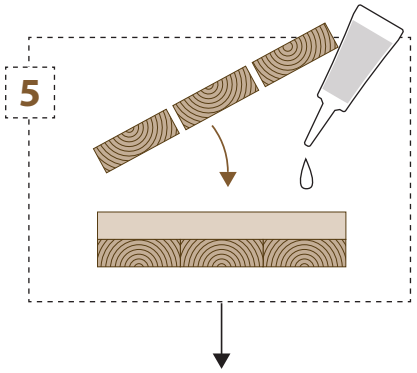
Softwood boards are first technically dried at a temperature of 55 °C for 48 hours until they reach a wood humidity content of 8–16%. After that, they are pre-planed.

GRADING

The pre-planed and kiln dried boards are then mechanically sorted based on their stability. For the cover lamellas of components, a higher surface quality is achieved by applying special sorting criteria that exceed the basic stability requirements.

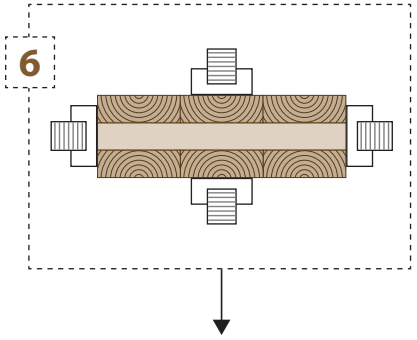
FINGER JOINTING & LAMELLA PLANING

Board sections with growth deviations that reduce stability or are visually undesirable, such as large branches, resin galls or bark inclusions, are removed based on stability and surface quality requirements. Using force-fitting finger jointing (finger-jointed connections), the individual boards are joined in longitudinal direction to form theoretically endless lamellas. The endless lamellas are then planed to the desired thickness.



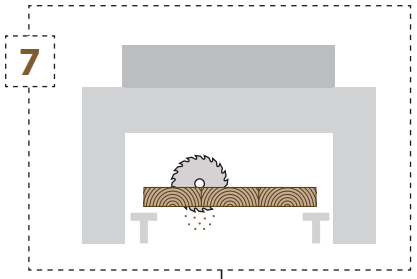
BONDING

The lamellas are laid out flat and in layers.



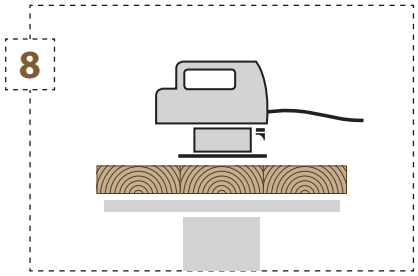
PRESSING

The press force is applied using hydraulic presses. The Pfeifer press ensures uniform pressure across the entire surface to minimise joints between the lamellas.



JOINERY

If necessary, joinery work can be performed. This includes format cuts, door and window cutouts, grooves, holes and openings.



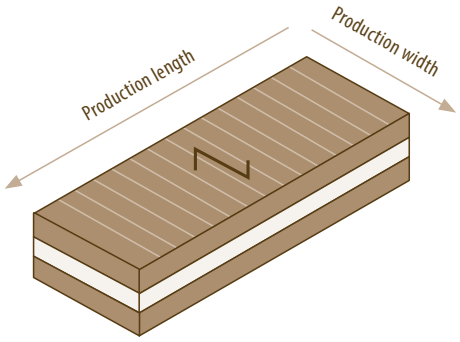
COSMETICS + SANDING (FOR VISUAL REQUIREMENTS)

The final stage includes cosmetic fine-tuning. Here, defects are repaired using wood patches. Afterwards, panels with special visual requirements are sanded using a sanding system.

PFEIFER CLT relies on standardisation

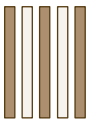
Standard superstructures

The orientation principle:



EXAMPLE:

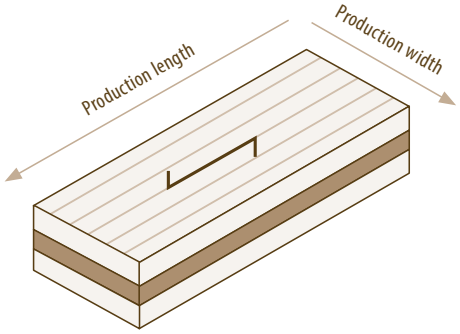
3s



5s

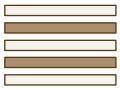
CROSSWISE TOP LAYER

Top layers in the crosswise direction of the panel (DQ) are primarily used for wall elements. Their load-bearing direction is vertical. As a standard, DQ panels consist of three to five layers. Production widths: up to 3.10 m.

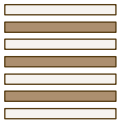


EXAMPLE:

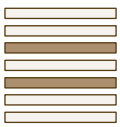
3s



5s



7s



7ss

LONGITUDINAL TOP LAYER

CLT panels with longitudinal top layers (DL) are primarily used for ceiling and roof elements. Their load-bearing direction is horizontal. Typically, they consist of three to seven layers. Production lengths: up to 14.5 m.

The fibre direction of the outer layer also determines the load-bearing direction. By using double layers, such as fibre-parallel top layers (ss), the longitudinal or crosswise stiffness or the load-bearing capacity of the panel can be increased in a targeted manner. This purposeful adjustment in panel construction also enhances fire resistance. For visual requirements, a uniform appearance can be achieved by adjusting the structure. PFEIFER CLT can theoretically be manufactured with up to 15 layers of crosswise-glued wooden lamellas.

PFEIFER		FIBRE DIRECTION	STRUCTURE	THICK-NESS	LENGTHS	BILLING WIDTHS	WEIGHT*
CLT			MM	MM	M	M	KG/M³
60	3s	Top layer possible length-wise or crosswise (**DQ/DL**)	**20**-20-**20**	60	8.00 m up to 14.50 m	2.45 up to 3.10 m in 5 cm increments	28.8
80	3s		**30**-20-**30**	80			38.4
90	3s		**30**-30-**30**	90			43.2
100	3s		**30**-40-**30**	100			48.0
110	3s		**40**-30-**40**	110			52.8
120	3s		**40**-40-**40**	120			57.6
100	5s		**20**-20-**20**-20-**20**	100			48.0
120	5s		**30**-20-**20**-20-**30**	120			57.6
140	5s		**40**-20-**20**-20-**40**	140			67.2
150	5s		**40**-20-**30**-20-**40**	150			72.0
160	5s		**40**-20-**40**-20-**40**	160			76.8
180	5s		**40**-30-**40**-30-**40**	180			86.4
200	5s		**40**-40-**40**-40-**40**	200			96.0
180	7s		**30**-20-**30**-20-**30**-20-**30**	180			86.4
200	7s		**20**-40-**20**-40-**20**-40-**20**	200			96.0
220	7s		**30**-30-**30**-40-**30**-30-**30**	220			105.6
240	7s		**30**-40-**30**-40-**30**-40-**30**	240			115.2
260	7s		**30**-40-**40**-40-**40**-40-**30**	260			124.8
280	7s		**40**-40-**40**-40-**40**-40-**40**	280			134.4
180	7ss		**30**-**30**-20-**20**-20-**30**-**30**	180			86.4
200	7ss		**30**-**30**-30-**20**-30-**30**-**30**	200			96.0
220	7ss		**30**-**30**-30-**40**-30-**30**-**30**	220			105.6
240	7ss		**40**-**40**-20-**40**-20-**40**-**40**	240			115.2
260	7ss		**40**-**40**-30-**40**-30-**40**-**40**	260			124.8
280	7ss		**40**-**40**-40-**40**-40-**40**-**40**	280			134.4
300	8ss		**40**-**40**-30-**40**-**40**-30-**40**-**40**	300			144
320	8ss		**40**-**40**-40-**40**-**40**-40-**40**-**40**	320			153.6

Further superstructures are available upon request.

ss: Top layers consist of two longitudinal sides

***** Calculated at 480 kg/m³

PFEIFER CLT emphasises visual appeal

Surface qualities

Wood is a natural product that swells and shrinks with changes in moisture content. Careful technical drying counteracts this effect. PFEIFER CLT is dispatched with a wood humidity content of 10–15 % to minimise the formation of cracks or joints. High-quality processing ensures that the material achieves superior product quality. The wooden panels are available in several optical categories, tailored to specific applications, with all boards sanded to a certain visible quality. The grading of individual lamellas is based on defined criteria.

	INDUSTRIAL QUALITY (IQ)	INDUSTRIAL AREA QUALITY (ISQ)	DOMESTIC VISUAL QUALITY (WSQ)
AREA OF APPLICATION	Purely structural components for secondary cladding (e.g. with plasterboard or 3-layer panels)	Visible components in secondary areas, such as in commercial and industrial structures or those seen from a distance (e.g., canopies), can only be used to a limited extent in residential areas	Visible components, especially for living areas. Also for kindergartens, schools and office areas. Treatment of the surface (on site) recommended (e.g. with varnish, UV protection, ...)
REQUIREMENTS FOR THE SURFACE	No visual requirements for the surface, purely strength-oriented features (C24) with isolated joints. Loose knots in the top layer, glue penetration, individual pressure marks and dirt may occur, discolouration (e.g., blue stains) is possible	Medium requirements, increased optical criteria for cover lamellas, individual narrow joints, slight discolouration (e.g. blue stains) possible	High requirements, special focus on homogeneous surface structure and lamella quality, occasionally allowing for minimal discolouration but excluding blue stains
PRODUCTION-RELATED TECHNICAL INFORMATION	Finger-jointing is visible in the cover lamellas, without bonding the narrow sides	Finger-jointing visible in the cover lamellas, to avoid shrinkage cracks, no narrow-side bonding	Finger-jointing visible in the cover lamellas, to avoid shrinkage cracks, no narrow-side bonding
CHAMFEER	Without chamfer	Chamfer (approx. 5 mm) for DL panels (at the component edges), DQ without chamfer	Chamfer (approx. 5 mm) for DL panels (at the component edges), DQ without chamfer
PROCESSING OF THE SURFACE AT THE FACTORY	Lamellas planed, sanded only on request, cross cut possible with DQ plates	Full-surface sanding (one side or both sides); cross cut possible with DQ panels	Full-surface sanding (one side or both sides); cross cut possible with DQ panels
SURFACE TREATMENT AT THE FACTORY	Not possible	Not possible	Possible on request with external partners
WOOD HUMIDITY (approx.) as delivered	10–15 %	10–15 %	10–15 %
CRACKS JOINTS	Wood is a natural product; therefore, like all structural solid wood products, crack and joint formation due to shrinkage towards the equilibrium moisture content (EMC) during usage is product-specific and cannot be entirely avoided. The narrow sides are not glued.		

Notes:
- Visual surfaces should always be sampled: contact us
- Exact criteria (e. g. branch sizes, ...) of the surface options: on request or at www.pfeifergroup.com
- Surface options are available on request and can include one- or two-sided application; the optical criteria do not apply to the narrow/front sides and machining edges
- For WSQ surfaces, a change of the panel construction may be required

Step by step to top quality

Project handling from a single source

At every project stage, Pfeifer customers benefits from competent contact persons and an established service culture surrounding our products. Quotations, order processing, loading and just-in-time delivery to the construction site come together in a comprehensive package that customers can rely on.

IT-optimized project workflows, state-of-the-art production facilities and experienced experts in sales, technical departments, production and logistics ensure cost-efficient and time-efficient project execution. Here is an overview of our range of competences:

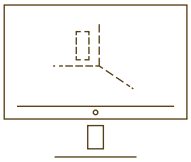
OUR OFFER

Every CLT project has individual requirements, which are taken into account as early as the consultation and quotation calculation phase. Technically trained employees support the classic field sales force of the Pfeifer Group to provide more in-depth advice when required. The technical office also supports the sales team with its expertise in individual project consulting. Tailor-made quotations and order processing are largely computer-assisted using a specialised CAD and ERP system. For larger projects and more complex designs, we partner with a network of specialised design offices.

The essential offer calculation parameters are:

- Quantities
- Panel construction
- Quality
- Joinery
- Transport/Logistics
- Additional products and services

OUR MISSION

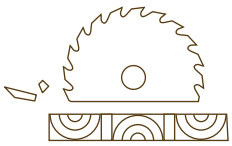


Immediately after an order is placed, we reserve the corresponding production capacity. The job preparation department prepares the customer's order information and planning documents, preparing them for the production department. In addition, Pfeifer employees generate release plans in the form of individual parts drawings for the customer, create commands for the joinery machinery and prepare loading plans, among other tasks.

Close coordination and communication with the customer are essential parts of this process. Our IT system functions as an interface between production and logistics, efficiently reducing additional costs.

The technical office and production work closely together. EDP supported processes guarantee efficiency.

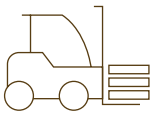
OUR PRODUCTION



The entire production process is controlled by an integrated IT system, which utilises all optimisation options – from raw material management to the packaging of finished CLT panels. The complex production process is further subdivided into individual steps (see the detailed production process on pages 18–19):

- Lamella sorting
- Finger jointing
- Planing
- CLT panel stacking and bonding
- Pressing
- Joinery
- Cosmetics & Sanding

OUR LOGISTICS



The best CLT panels are useless if they cannot be delivered to the right place at the right time. Thanks to individualised organisation and coordination of the logistics process between the factory and customers, finished PFEIFER CLT is usually delivered just-in-time directly by our logistics partners to the construction site.

For scheduling, packaging and loading, an entire hall equipped with a semi-automatic crane is available at the Schlitz site. The IT system records and automates individual panels, packages and entire loads. Pfeifer guarantees the most economical type of loading while ensuring fast and efficient unloading at the construction site. To protect against environmental influences, all PFEIFER CLT panels and elements are protected by sturdy, UV-impermeable film and suitable coverings.

The electronically recorded loading papers and documents keep customers up to date on the status of their orders and deliveries.

PFEIFER CLT invests in safety

Certificates

PFEIFER CLT is an approved and tested building product, subject to strict internal and external controls. These standards ensure high-quality and safe construction with PFEIFER CLT. The raw material for our processed wooden panels is sourced from companies employing sustainable forestry methods.

Scan the QR code to access the current certificates

PUBLICATION DETAILS
Published by Pfeifer Timber GmbH, Fabrikstraße 54, A-6460 Imst, Austria
Cover image: © shutterstock.com: alexandre zveiger

Other quality products of the Pfeifer Group

Glued laminated timber
Decades of know-how and the constant development of this versatile precision material make Pfeifer one of Europe's leading manufacturers. Glulam elements in various cross-sections and lengths are used in solid timber construction for roofs, ceilings and walls.

Solid wood panels
Single- and three-layered solid wood panels showcase their aesthetic, economic and ecological advantages in modern furniture construction, interior design and structural timber construction. The innovative product variant with tongue and groove allows for particularly quick and easy installation.

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