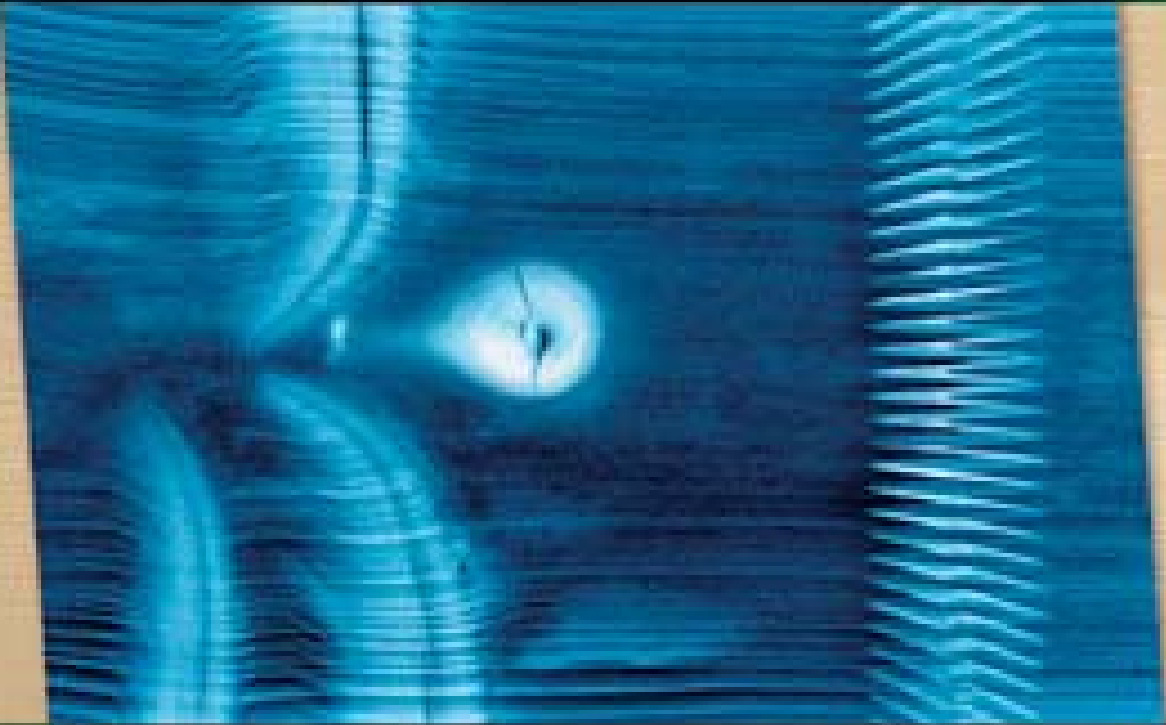


GLT is the future

GLT: Individually tested
for guaranteed quality

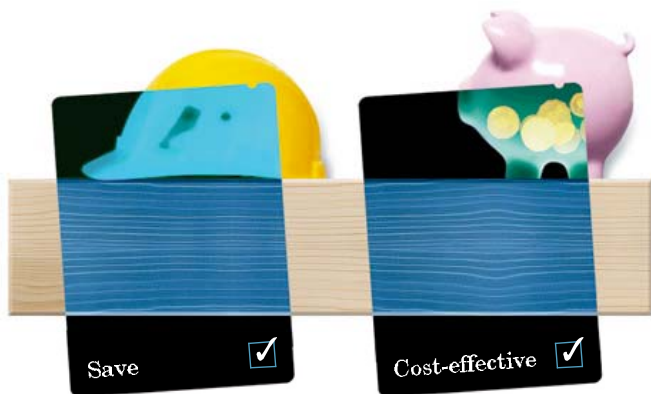


GLT: GluLam Technologie

▲●■ **Leitinger**
feel wood feel good

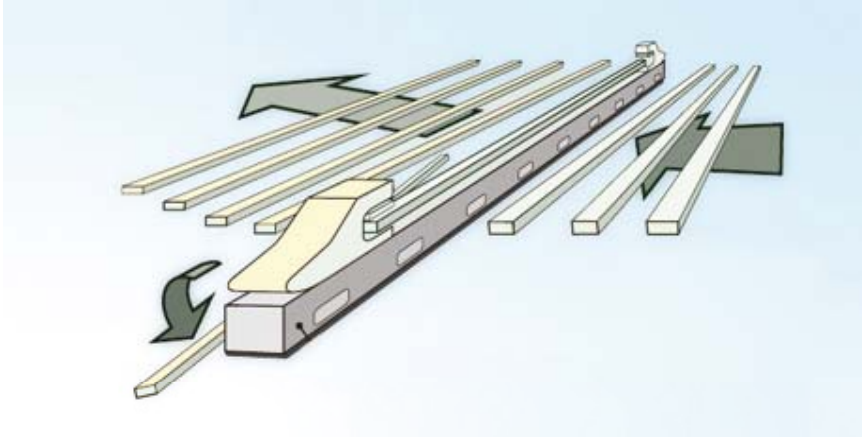
Seamless testing for maximum safety.

GLT™ (GluLam Tensileproved) products are a completely new generation of glued-laminated beams. The patented Leitinger tensile test guarantees that each individual board meets specified minimum strength requirements.



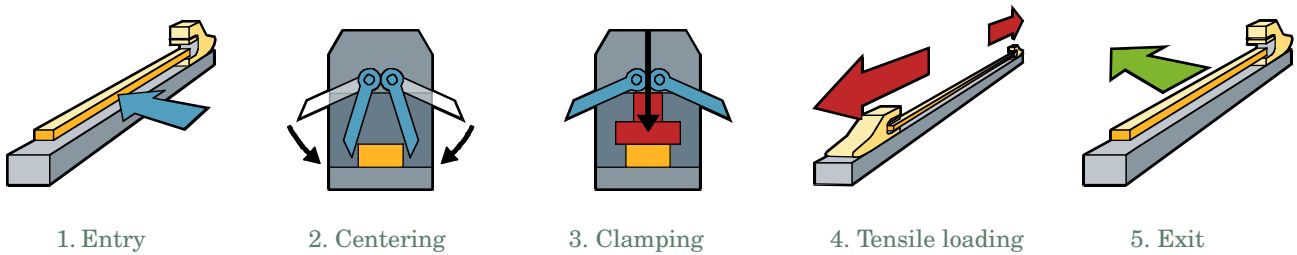
Our GLT™ products therefore require no safety margin to be added. Because you will receive exactly the quality you need for your construction project.





GLT™-tensile tested. The new word for quality.

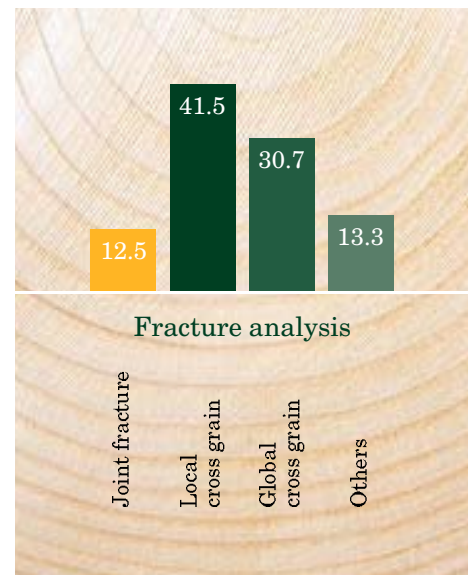
Leitinger is the first company worldwide to develop a tensile test that is able to detect hidden defects (e.g. cracks and defective finger joints) in glulam timber. This means we can ensure that each individual GLT™ lamination meets the specified strength requirements and additionally guarantee a minimum strength.



This is how it works: For the tensile test, each individual beam is clamped into the tensile machine at both ends. The product is then loaded with the specified tensile force for 2 seconds. Fractured pieces are rejected so that customers receive only top-quality GLT™ products.

GLT™ delivers on its promises.

The fracture statistics show that the majority of defects occur where they are not expected - only 12.5% of fractures occur at the finger joint.



„EN 385 tested”

Out now: GLT™ Color

Leitinger GLT™ Color is factory stained and delivered directly to the job site. In this way, you get everything from one source and can use the product immediately.



GLT™ Mono tongue/groove as a visible supporting and bracing ceiling.

The GLT™ benefits:

- ✓ Maximum Safety – all laminations are individually tested without harming the material.
- ✓ Top quality – only sections of uniform proven quality are finger jointed.
- ✓ Extreme minimum strength – as compared to other glulam timber products.
- ✓ Attractive appearance – solid wood character.
- ✓ Versatile application – even suitable for large spans.

GLT™ machining:

The elements can optionally be factory machined (milled, drilled etc.) according to customer requirements prior to delivery.



Stack of machined elements.

GLT™ pressure impregnation:

Pressure impregnation is optionally offered for use in harsh outdoor conditions.

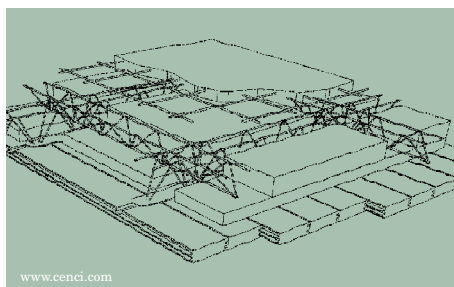


Pressure impregnation makes wood highly resistant even in extreme conditions.

Where GLT™ is brought to bear.

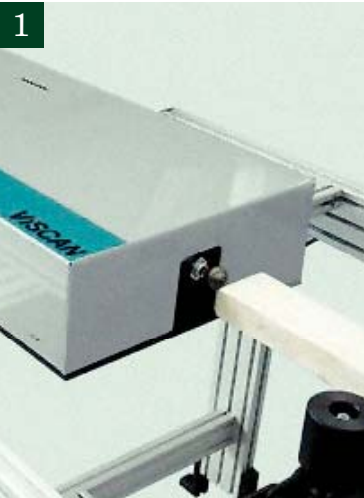
products meet high safety standards, making them suitable for a wide variety of applications.

Modern roof structures with large spans, for example, can be implemented without problems using a wood-concrete composite ceiling.





Why you can rely on GLT™? Because only the best stand the test.



1. VISCAN presorting

The **VISCAN system** fully automatically measures the natural frequency of the individual pieces. A "hammer" taps on the end of the board, causing it to vibrate. A laser then measures the travel time of the oscillatory wave. The system finally calculates the mean stiffness (**modulus of elasticity**) of each single element.

2. Visual Grading

Presorting is followed by visual grading, where defective sections are cut off. The pieces are sorted into the grades GLT™ Select and GLT™ Industrie and then finger jointed.

3. The patented Leitinger tensile test

Leitinger's unique patented tensile measurement system rigorously tests all finger joints – and reliably detects any hidden defects. **And all this without harming the material.**

We make sure that all GLT™ products are 100% tested and free of defects before they leave our factory.

Height (mm)	Standard cross-sections			Special lengths of 2-18m available			
	60	80	100	120	140	160	200
100	●	●	●				
120	●	●	●	●○			
140	●	●	●		●		
160	●	●	●	●○		○	
180	●	●	●	●○			
200	●	●	●	●○	●○	○	○
220	●	●	●				
240	●	●	●	●○	●○	○	○
260	●	●	●				
280	●	●	●				○

Width (mm)

- GLT™ Mono (stock length 13m)
○ GLT™ Duo (stock length 13.5m)

Strength classes C24 + C30 according to ÖNORM EN 338	N/mm ²	
	C24	C30
Modulus of elasticity parallel to grain $E_{0,mean}$	11.000*	12.000
Bending $f_{m,k}$	24	30
Tension parallel $f_{t,0,k}$	14	18
Compression parallel $f_{c,0,k}$	21	23
Compression perpendicular $f_{c,90,k}$	2.5	2.7
Shear $f_{v,k}$	2.5	3.0

*can be increased to 11.600 for GLT™ Duo und GLT™ Trio according to Z-9.1-440.

Quality Description GLT™ Mono	GLT™ Select (C24)	GLT™ Industrie (C24)
Wood species	Spruce	Spruce / Fir / Pine
Wane	inadmissible	up to 10% surface/cross-section
Knots (1)	up to 0.4	up to 0.4
Condition of knots	Knot diameter max 70mm (2)	Knot diameter max 70mm
Average annual ring width (3)	up to 6mm	up to 6mm
Slope of grain	up to 12cm/m	up to 12cm/m
Seasoning checks	width up to 3mm	admissible
Seasoning checks (4)	inadmissible	admissible
Lightning/frost cracks, ring shake (6)	inadmissible	inadmissible
Blue stain	inadmissible	admissible
Nail holding streaks (red/brown)	inadmissible	up to 40% surface/cross-section
Red/white rot	inadmissible	inadmissible
Compression wood	up to 40% surface/cross-section	up to 40% surface/cross-section
Insect damage	inadmissible	in principle without worm holes
Mistletoe attack	inadmissible	inadmissible
Moisture	max. 18%	max. 18%
Type of cut	2 ex log	2 ex log
Tolerance (5)	-	+/- 1mm
Bark pockets	inadmissible	same as knots
Resin pockets	up to 5mm, no accumulations	admissible
Surface	planed on 4 sides, with bevelled edges	planed on 4 sides, with bevelled edges (7)
Ends	rectangular cross-cutting	rectangular cross-cutting

(1) Knot diameter up to 40% of width or height, (2) loose knots, knot holes, knots that have fallen out and isolated chipped knots up to a diameter of 20 mm are admissible. (3) Core: from 25 mm, (4) Ending along the edge, (5) Average moisture content 15% (6) with an area of 12.5 mm around the pith being excluded, (7) rough areas admissible on all sides. The requirements for GLT™ must be met for 95% of items delivered due to unavoidable grading errors (machine aided sorting according to ÖNORM DIN 4074-1 and other specifications) and moisture fluctuations within individual cross-sections.