From wood to wonders

CLT, GLT and further hightec wood products

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DI Georg Jeitler | Innovations | Standardisations | Certifications | Product development
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  Birch for glued laminated and cross laminated timber
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HASSLACHER NORICA TIMBER
locations | turn over | employees | cutting capacity

- founding: 1901
- locations: 8 sites in 4 countries
- sales: in more than 40 countries
- employees: 1,600
- cutting capacity: 1.2 Mio. m³ of logs per year
- engineered wood products: about 560,000 m³
HASSLACHER NORICA TIMBER

Products

SAWN TIMBER

PROFILED TIMBER

FINGER JOINTED STRUCTURAL TIMBER

GLUED LAMINATED SOLID TIMBER

GLUED LAMINATED TIMBER

GLUED LAMINATED TIMBER CEILING SYSTEM

CROSS LAMINATED TIMBER NORITEC X-LAM

GLUED LAMINATED TIMBER SPECIAL COMPONENTS

SPECIAL PRODUCTS

PELLETS

SHUTTERING BOARDS

PALLETS
Innovation in safety of timber constructions
GLT® – Girder Longitudinally Tensile-tested
Only the best, can stand the test!
Innovation in safety of timber constructions

GLT® – Girder Longitudinally Tensile-tested
*Only the best, can stand the test!*

\[
\text{finger jointed structural timber} = \quad \text{finger jointed massive wood} = \quad \text{KVH® (trade mark)}
\]

= proof loaded finger jointed structural timber

Each beam passes the patented proof loading device. With this procedure all weak zones of the beam (grading failure, failure in the finger joints, failure in production) are detected and excluded from production. → **Complete quality assurance instead of random checks.**
Innovation in safety of timber constructions
GLT® – Girder Longitudinally Tensiletested

Only the best, can stand the test!

- **Volume and cost saving**, because of higher mechanical properties
- **Safety** – no faulty finger joints or weak zones in the timber
- **Easy design** on the level of glued laminated timber
Innovations in hardwood BIRCH
BIRCH meets Glued Laminated Timber
& Cross Laminated Timber

High mechanical properties – high strength and high stiffness. Because of this high mechanical properties slender dimensions are possible.

Surface of BIRCH has a very interesting optical appearance.
Innovations in hardwood BIRCH glued laminated timber / industrial hall

- Industrial hall with an area of 1.000 m².
- framework: 27 m span length, 3m hight.
- lower cord: 420x480 mm, block-glued.
- main girder: cross section: 160 x 1.000 mm
  span length: 18 m
  cantilever: 5,75 m

Because of the high mechanical properties it was possible to safe up to 25% of the volume of timber.
Innovation in surface of CLT
Excellent surface in
Cross laminated timber
Advantages
- almost no cracks in the surface
- almost no gaps between the boards
- use of very fine wood and special species possible
- no disadvantages in dimensioning of CLT

Patented built up
- filling layer → provides strength and stiffness
- cross layer → minimizes cracks an gaps
- covering layer → ensures a perfect surface

Wood species for the covering layer
- Softwood: spruce, fir, larch, stone pine
- Hardwood: birch, oak
- Steamed spruce shows an “old wood” effect.
Innovation in surface of CLT
Excellent surface in Cross laminated timber

References
Studio of architect Herwig Ronacher / Carinthia / Austria
Excellent quality in spruce, stone pine and oak. no gaps, no cracks even after the first heating period.
Innovation in surface of CLT
Excellent surface in Cross laminated timber

References
Living room of Prof. Diethmar Sternad / Carinthia / Austria
Excellent quality in spruce (ceilings) and birch (walls)
HOHO VIENNA
+ 24 storeys
+ 84 m height
+ 4,000 m² office space
+ Largest wooden office building in the world
+ Material delivered by HASSLACHER group:
  - Glued laminated timber columns, block-glued
  - CLT-walls in Excellent quality out of spruce

from wood to wonders. by innovation

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