



GLULAM



GLULAM

BENEFITS – PROPERTIES

High load bearing capacity: Low dead load and high loading capacity (lighter than steel constructions at the same load bearing capacity) enable large spans with minimum dimensions.

High dimensional stability: Due to production techniques, glulam is a dimensionally stable material with minimised cracking.

Large variety of shapes: Glulam can be produced in virtually any shape and size.

High value surface quality: Excellent appearance thanks to the latest scanning and planing Technologies.

Swelling and shrinking: Glulam is dried to built-in moisture. Therefore the natural shrinking, swelling and associated leaks and cracking is reduced.

High fire resistance: The calculated combustion value of softwood is only 0.7 mm/min. In contrast with other building materials the combustion behaviour is safe and predictable (load bearing capacity is retained longer than for steel constructions)

Earthquake-safe: Glulam enables earthquake-proof construction.

QUALITY ASSURANCE

Raw material from the best forests, factories with their own production control, regular external inspections by independent institutes and complete documentation are the principles of quality assurance.

LOGISTICS PLANNING

Logistics department has optimum solutions for prompt and reliable delivery.



ENVIRONMENT

Climate: CO² remains a long-term compound in components made from wood and does not result in pollution to the atmosphere.

Sustainability: The wood used originates from sustainable managed forests.

Transport: The low weight of timber reduces transport costs and harmful waste gases.

Natural resistance: Wood is corrosion-resistant and behaves favourably to chemical aggressive substances. There is no need for chemical wood protection when used properly.

Recycling: Glulam is environmentally friendly, can be recycled or used for thermal utilisation.

PROFITABILITY

Processing: Simple and quick

Prefabrication: Short assembly times thanks to high level of prefabrication

Small component dimensions: Saving potential by using components with high load bearing capacities.

RANGE

Manufacture takes place with the help of technically highly developed production methods. Beams of the strength classes GL 24, GL 28, GL 32, GL 36 are produced. The core competence lies in the production of straight as well as curved beams.

STRENGTH AND RIGIDITY PROPERTIES

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|--|---|------------------------|--------|--------|--------|--------------------------|--------|--------|--------|
| 1 | Component | Combined glulam | | | | Homogenous glulam | | | |
| 2 | Strength class | GL 24c | GL 28c | GL 32c | GL 36c | GL 24h | GL 28h | GL 32h | GL 36h |
| Strength values in N/mm² | | | | | | | | | |
| 3 | Deflection ($f_{m,k}$) | 24 | 28 | 32 | 36 | 24 | 28 | 32 | 36 |
| 4 | Tension: Parallel ($f_{t,0}$) | 14 | 16.5 | 19.5 | 22.5 | 16.5 | 19.5 | 22.5 | 26 |
| 5 | At right angles ($f_{t,90,k}$) | 0.35 | 0.4 | 0.45 | 0.5 | 0.4 | 0.45 | 0.5 | 0.6 |
| 6 | Compression: Parallel ($f_{c,0,k}$) | 21 | 24 | 26.5 | 29 | 24 | 26.5 | 29 | 31 |
| Strength values in N/mm² | | | | | | | | | |
| 7 | Modulus of elasticity: Parallel ($E_{0,mean}$) | 11,600 | 12,600 | 13,700 | 14,700 | 11,600 | 12,600 | 13,700 | 14,700 |
| 8 | At right angles ($E_{90,mean}$) | 320 | 390 | 420 | 460 | 390 | 420 | 460 | 490 |
| 9 | Shear modulus: G_{mean} | 590 | 720 | 780 | 850 | 720 | 780 | 850 | 910 |
| Density characteristic values in kg/m³ | | | | | | | | | |
| 10 | Density ρ_k | 350 | 380 | 410 | 430 | 380 | 410 | 430 | 450 |

CERTIFICATES

EN 14080 Glulam

ÖNORM EN 386

ÖNORM DIN 4074-4

JAS

Gluing approval A

Approval certificate

