

m³ Glued laminated timber (glulam)

Glued laminated timber or glulam is a structurally engineered timber product produced from large strips of graded timber that are bonded together. Glulam has a high degree of dimensional stability, and a high strength to weight ratio compared to steel.

Timber members are individually selected for lamination, to maximise strength and performance. Because of this, glulam can be manufactured with increased strength in particular areas, to compensate for areas of high stress in a structure. Synthetic resin glues are typically used as a binding agent, commonly in conjunction with finger joints to increase joint performance.

Glulam can be used for long structural members, which exceed the capabilities of standard timber. It is also used for columns, rafters, trusses and curved beams.

Category *Timber products*

Type *Manufactured timber product*

Functional unit *m³*

Specific heat *1 300 J/(kg·K)*

Density *430 kg/m³*

Common uses

Structural members, columns, rafters, trusses, curved beams

Process name

Glued laminated timber, indoor use, at plant/RER U/AusSD U

Input-output sector

Other Wood Product Manufacturing

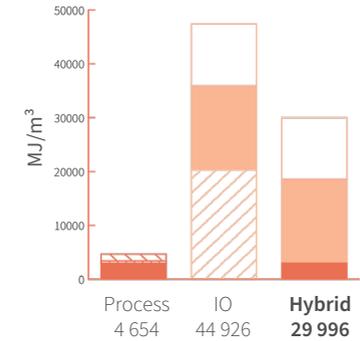
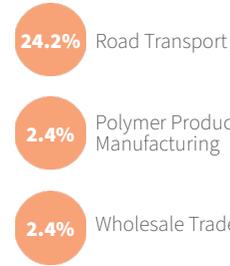
Further information

doi.org/10.26188/5da554a55f5a5

Material variations

| | Unit | Energy (MJ/unit) | Water (L/unit) | GHG emissions (kgCO ₂ e/unit) |
|----------------|----------------|------------------|----------------|--|
| Glulam indoor | m ³ | 29 996 | 35 813 | 1 718 |
| Glulam outdoor | m ³ | 28 279 | 31 246 | 1 605 |

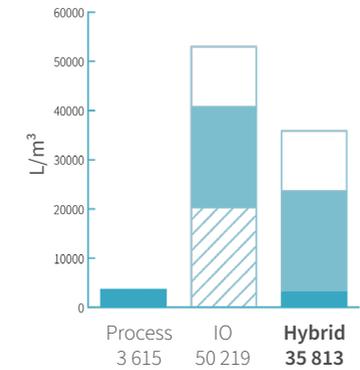
TOP THREE INPUTS



ENERGY



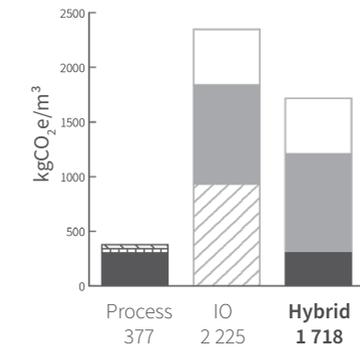
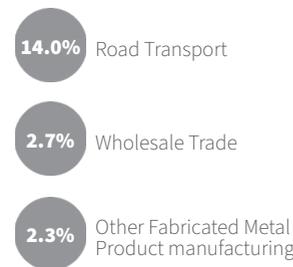
TOP THREE INPUTS



WATER



TOP THREE INPUTS



GREENHOUSE GAS EMISSIONS

