

m³ Cross laminated timber (CLT)

Cross laminated timber (CLT) is a manufactured timber product, similar to plywood. Solid timber members are bonded together, with the grain alternating by 90 degrees for each lamination. CLT is much thicker than traditional plywood and has superior structural capabilities. It has excellent dimensional stability, strength and rigidity.

CLT is fabricated using a range of different timber varieties. It is typically bonded together using melamine urea formaldehyde, polyurethane or other adhesives.

CLT has different structural capabilities when compared with conventional timber, and acts as a sheet product, rather than a framing product. It can be used as a complete floor, wall or roof system, without the need for additional supporting members.

Category *Timber products*

Type *Manufactured timber product*

Functional unit *m³*

Specific heat *1 300 J/(kg·K)*

Density *490 kg/m³*

Common uses
Flooring and walling system, structural panels, timber sheets

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

Input-output sector
Other Wood Product Manufacturing

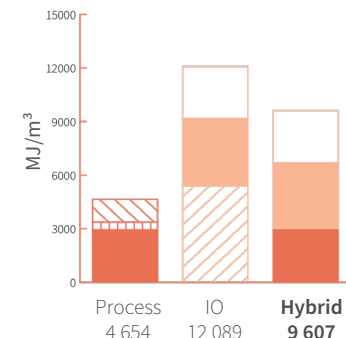
Further information
doi.org/10.26188/5da55346af5dc

Material variations

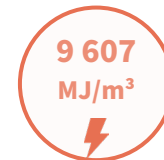
	Unit	Energy (MJ/unit)	Water (L/unit)	GHG emissions (kgCO ₂ e/unit)
Cross laminated timber (CLT)	m ³	9 607	8 608	645
CLT - 60 mm	m ³	576	516	38.7
CLT - 105 mm	m ³	1 009	904	67.7
CLT - 175 mm	m ³	1 681	1 506	113

TOP THREE INPUTS

- 20.3% Road Transport
- 6.5% Sawn timber, softwood, raw, air dried, u=20%, at plant/RER U/AusSD U
- 2.0% Wholesale Trade

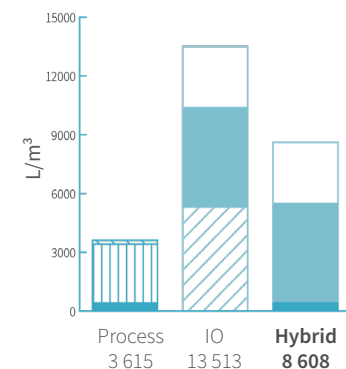


ENERGY

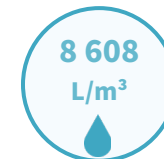


TOP THREE INPUTS

- 3.8% Water Supply, Sewerage and Drainage Services
- 2.7% Wholesale Trade
- 2.3% Road Transport

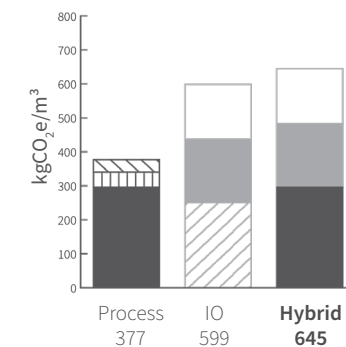


WATER



TOP THREE INPUTS

- 18.3% Sawn timber, softwood, raw, air dried, u=20%, at plant/RER U/AusSD U
- 9.6% Road Transport
- 2.6% Wood chips, from industry, softwood, burned in furnace 300kW/CH U/AusSD U



GREENHOUSE GAS EMISSIONS

