

kg Laminated glass

Laminated glass is a composite safety glass, made by combing two or more sheets of flat glass with a plastic, or polyvinyl butyral (PVB) interlayer (usually 0.38 mm thick). The layers are bonded together using heat and pressure.

Flat glass is made from a combination of silica, soda, lime, dolomite and aluminium oxide. The raw materials are melted at high temperature and the molten glass is then formed into flat glass using a variety of processes. A floating process, where the molten glass is floated on a bed of tin, is most common for manufacturing window glass. The glass is then gradually cooled (annealed) and cut to size.

Laminated glass is commonly used for windows, glass doors and transparent walls, where there is an increased chance of damage, as when broken, the glass remains intact, held together by the PVB layer. It provides added safety, security, thermal and acoustic properties over flat glass. The glass comes in a range of thicknesses, starting from 6.38 mm.

Category	Glass
Type	Glass
Functional unit	kg
Specific heat	840 J/(kg·K)
Density	2 600 kg/m ³

Common uses
Windows, doors, partitions, skylights, ballustrades

Process name
Laminated safety glass (per mass), at plant/RER U/AusSD U

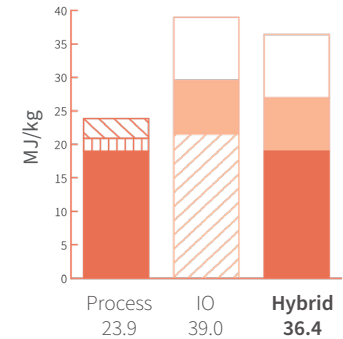
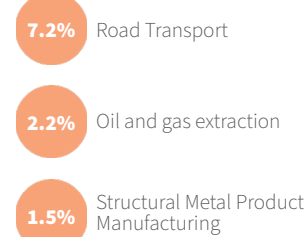
Input-output sector
Glass and Glass Product Manufacturing

Further information
doi.org/10.26188/5da5556225c38

Material variations

	Unit	Energy (MJ/unit)	Water (L/unit)	GHG emissions (kgCO ₂ e/unit)
Laminated glass	kg	36.4	59.7	2.8
Laminated glass sheet - 6.38 mm	m ²	604	991	46.8
Laminated glass sheet - 8.38 mm	m ²	794	1 302	61.4
Laminated glass sheet - 10.38 mm	m ²	983	1 613	76.1
Laminated glass sheet - 12.38 mm	m ²	1 172	1 923	90.7

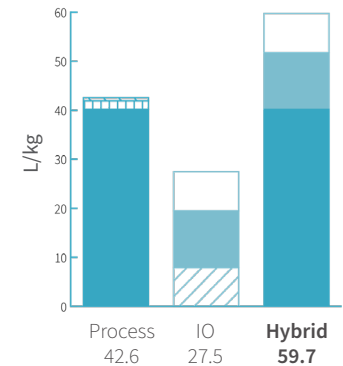
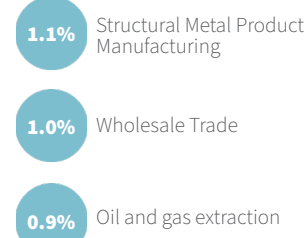
TOP THREE INPUTS



ENERGY



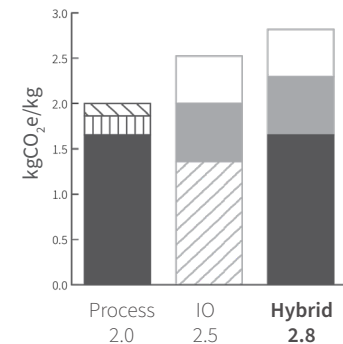
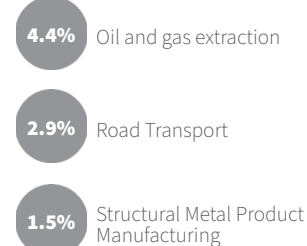
TOP THREE INPUTS



WATER



TOP THREE INPUTS



GREENHOUSE GAS EMISSIONS

