

kg Hot rolled galvanised structural steel

Steel is a ferrous metal and is an alloy of iron and carbon, as well as potential other elements. It has a very high tensile strength. Steel has been used in the construction industry for over a century.

The core material for making steel is iron, which is found in iron ore. Iron is extracted from iron ore in blast furnaces through the smelting process, while controlling for the content of carbon. The molten steel is usually further processed before being cast for its final use. Galvanisation can be used to apply a coat of zinc crystals on the surface of the steel to significantly improve its resistance to corrosion.

Steel is commonly used in the construction industry, mainly as a structural material. Hot rolled galvanised steel is used to produce elements for the outdoors, such as poles, pipes, and decking.

Category Metals

Type Galvanised steel (zinc coated)

Functional unit kg

Specific heat 456 J/(kg·K)

Density 7 850 kg/m³

Common uses Beams, columns

Process name Galvanised hot rolled steel (custom)

Input-output sector Structural Metal Product Manufacturing

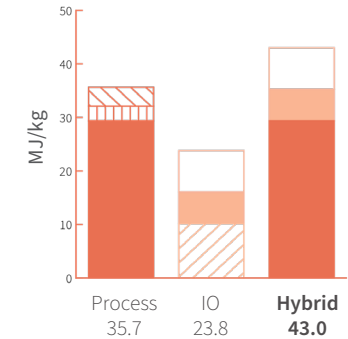
Further information doi.org/10.26188/5da5554017f41

TOP THREE INPUTS

49.8% Steel, converter, low-alloyed, at plant/RER U/ AusSD U

9.4% Hot rolling, steel/RER U/ AusSD U

9.1% Zinc coating, coils/RER U/ AusSD U



ENERGY

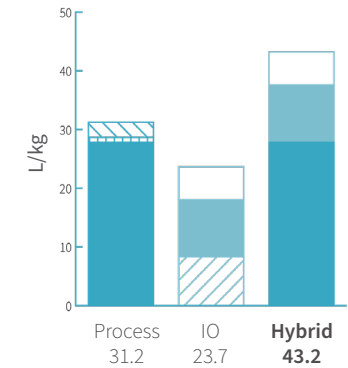
43.0
MJ/kg

TOP THREE INPUTS

37.3% Steel, converter, low-alloyed, at plant/RER U/ AusSD U

14.7% Hot rolling, steel/RER U/ AusSD U

12.5% Zinc coating, coils/RER U/ AusSD U



WATER

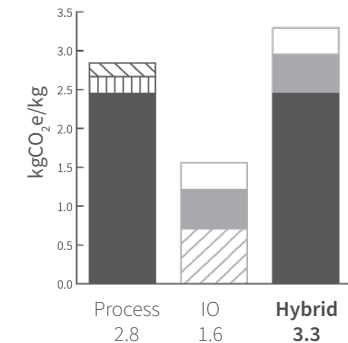
43.2
L/kg

TOP THREE INPUTS

55.2% Steel, converter, low-alloyed, at plant/RER U/ AusSD U

9.9% Zinc coating, coils/RER U/ AusSD U

9.2% Hot rolling, steel/RER U/ AusSD U



GREENHOUSE GAS EMISSIONS

3.3
kgCO₂e/kg