

kg Copper wire

Copper is a soft and malleable non-ferrous metal and has been used in construction for hundreds of years. It has high thermal and electric conduction properties.

Copper is made by crushing mined copper ores and flash smelting them. The resulting copper sulphite is further heated with oxygen to obtain copper oxide. The latter is heated to obtain blister copper, which is used to cast anodes that are turned into pure copper cathodes through electroplating. These cathodes are melted, roll milled to a very small thickness and fed to a coiler than produces the wire.

Copper has multiple uses in construction. Copper wires are used in the majority of electrical cables.

Category *Metals*
Type *Copper*
Functional unit *kg*
Specific heat *390 J/(kg·K)*
Density *8 940 kg/m³*

Common uses
Electrical cables

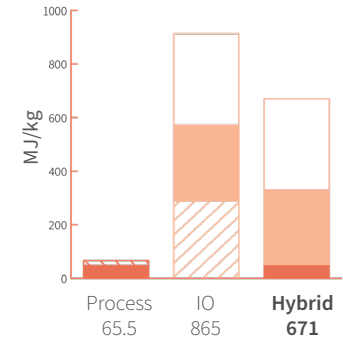
Process name
Copper wire (custom)

Input-output sector
Electrical Equipment Manufacturing

Further information
doi.org/10.26188/5da553272580f

TOP THREE INPUTS

- 6.0% Road Transport
- 5.9% Copper, primary, at refinery/GLO U/AusSD U
- 5.1% Iron and Steel Manufacturing

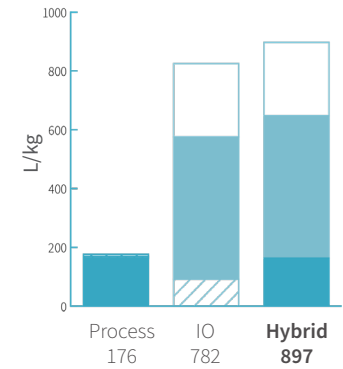


ENERGY

671 MJ/kg

TOP THREE INPUTS

- 16.7% Copper, primary, at refinery/GLO U/AusSD U
- 5.5% Professional, Scientific and Technical Services
- 5.4% Wholesale Trade

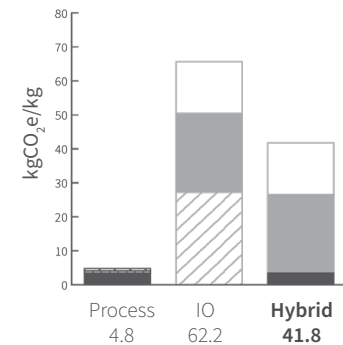


WATER

897 L/kg

TOP THREE INPUTS

- 6.9% Copper, primary, at refinery/GLO U/AusSD U
- 6.9% Electrical Equipment Manufacturing
- 4.9% Wholesale Trade



GREENHOUSE GAS EMISSIONS

41.8 kgCO₂e/kg

