

kg Clay brick

Clay bricks are widely used in the construction industry for their strength, affordability and ease of construction. They have high durability, weather and fire resistance, compressive strength, and good thermal/sound insulative properties. The strength of a brick wall is also largely dependent on the quality of the mortar and workmanship.

Bricks are made from clay, which is an abundant resource across most of the world. Clay is prepared and mixed to ensure consistent particle size and mineral content. The clay is then extruded, soft moulded or dry pressed into brick shaped forms. The bricks are dried in a temperature and humidity controlled environment, and fired in a high temperature oven/kiln. Coatings, glazing or textures are applied to give the brick its final appearance. The colour of a brick largely depends on the mineral content of the clay and final firing temperature.

Bricks are commonly used for external cladding, loadbearing walls, flooring, and other construction elements. Face bricks usually have a decorative or smooth finish, while building/common bricks are used for internal structure. Bricks can also be hollowed, to reduce the volume of the brick and materials needed per unit.

Category Sand, stone and ceramics

Type Clay

Functional unit kg

Specific heat 835 J/(kg·K)

Density 2 403 kg/m³

Common uses

Cladding, loadbearing walls, landscaping, decorative features

Process name

Brick, at plant/RER U/AusSD U

Input-output sector

Ceramic Product Manufacturing

Further information

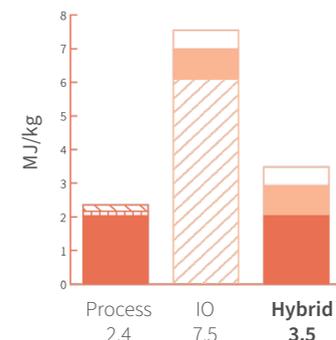
doi.org/10.26188/5da552ad307a9

TOP THREE INPUTS

5.6% Other Non-Metallic Mineral Product Manufacturing

5.0% Road Transport

1.9% Cement, Lime and Ready-Mixed Concrete Manufacturing



ENERGY

3.5 MJ/kg

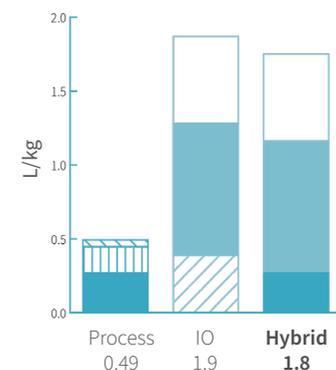


TOP THREE INPUTS

6.1% Other Non-Metallic Mineral Product Manufacturing

3.1% Professional, Scientific and Technical Services

2.7% Food and Beverage Services



WATER

1.8 L/kg

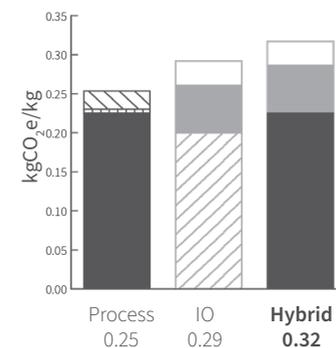


TOP THREE INPUTS

4.6% Other Non-Metallic Mineral Product Manufacturing

1.9% Cement, Lime and Ready-Mixed Concrete Manufacturing

1.8% Road Transport



GREENHOUSE GAS EMISSIONS

0.32 kgCO₂e/kg

