

kg Asphalt

Asphalt is made by combining bitumen and aggregates. It is also commonly known as asphaltic concrete or bituminous concrete. Bitumen is a petroleum-based product made by extracting components of crude oil. Crude bitumen obtained from oil sands can also be used, which is a naturally occurring bitumen. Bitumen is used as a binder and generally represents around 5% of the asphalt mix.

Typical aggregates used are crushed rock, sand or gravel and these make up approximately 95% of the volume of asphalt. The maximum aggregate size is generally 10 mm. Polymers and other additives are often added to control the properties of asphalt. Due to its high viscosity, asphalt is heated prior to being mixed with the aggregate materials.

Asphalt is used mainly as a road construction material, but also commonly used for path and carpark surfacing as well as waterproofing of roofs.

Category *Miscellaneous*
Type *Bitumen*
Functional unit *kg*
Specific heat *837 J/(kg·K)*
Density *2 649 kg/m³*

Common uses
Roads, carparks, pathways, roofs

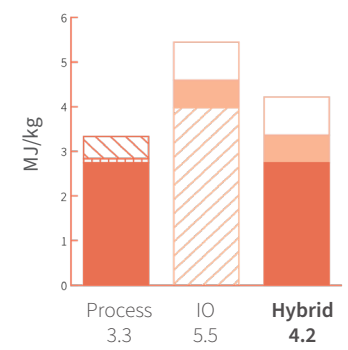
Process name
Asphalt, standard mix, 5.5% virgin bitumen, at plant/AU U

Input-output sector
Petroleum and Coal Product Manufacturing

Further information
doi.org/10.26188/5da551ed753b9

TOP THREE INPUTS

- 55.8%** Bitumen, at refinery/RER U/AusSD U
- 12.9%** Oil and gas extraction
- 1.4%** Gravel, crushed, at mine/CH U/AusSD U

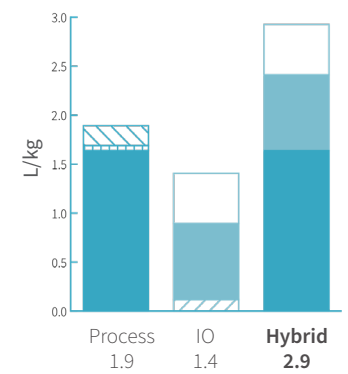


ENERGY

4.2 MJ/kg

TOP THREE INPUTS

- 34.4%** Gravel, crushed, at mine/CH U/AusSD U
- 15.1%** Oil and gas extraction
- 12.0%** Bitumen, at refinery/RER U/AusSD U

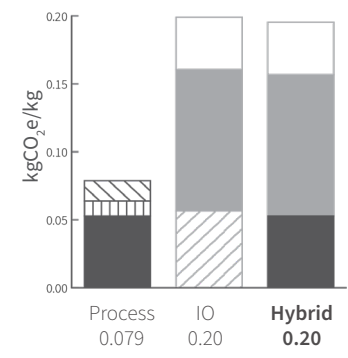


WATER

2.9 L/kg

TOP THREE INPUTS

- 48.1%** Oil and gas extraction
- 9.4%** Bitumen, at refinery/RER U/AusSD U
- 3.8%** Gravel, crushed, at mine/CH U/AusSD U



GREENHOUSE GAS EMISSIONS

0.20 kgCO₂e/kg

