

kg Acrylonitrile butadiene styrene (ABS)

Acrylonitrile butadiene styrene (ABS) is a thermoplastic with high mechanical strength. It is tough, resistant to impacts, offers a good surface quality and is a good electrical insulator.

ABS is derived from three polymers, namely acrylonitrile, butadiene and styrene, mostly through emulsion. It can be moulded or extruded.

ABS is generally used for pipes and fittings and sometimes for general purpose panels within the construction industry.

Category *Plastics*
Type *Other polymers*
Functional unit *kg*
Specific heat *1 423 J/(kg·K)*
Density *1.07 kg/m³*

Common uses
Pipes, fittings, general purpose panels

Process name
Acrylonitrile-butadiene-styrene copolymer, ABS, at plant/RER U/AusSD U

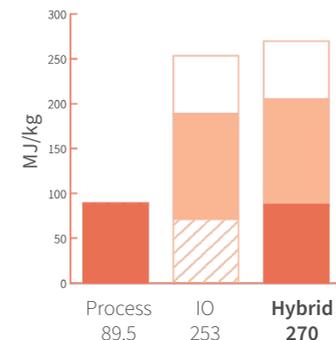
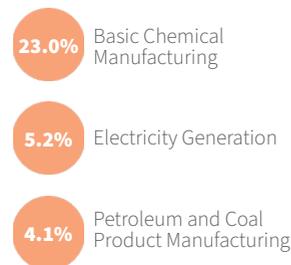
Input-output sector
Polymer Product Manufacturing

Further information
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Material variations

	Unit	Energy (MJ/unit)	Water (L/unit)	GHG emissions (kgCO ₂ e/unit)
Acrylonitrile butadiene styrene (ABS)	kg	270	359	16.0
ABS panel - 2mm	m ²	577	767	34.3
ABS panel - 3mm	m ²	866	1 151	51.4
ABS pipe - 21.4 mm outer dia., 2.1 mm thick	m	36.8	48.9	2.2
ABS pipe - 48.3 mm outer dia., 3.6 mm thick	m	146	194	8.7
ABS pipe - 168.3 mm outer dia., 7.7 mm thick	m	1 122	1 491	66.6

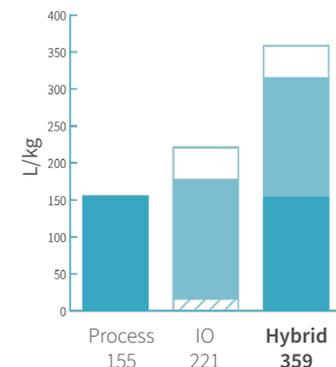
TOP THREE INPUTS



ENERGY



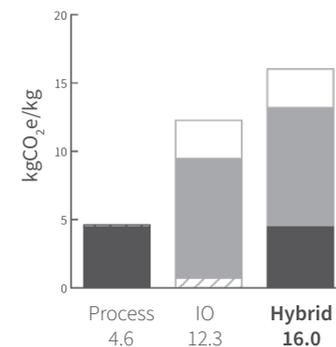
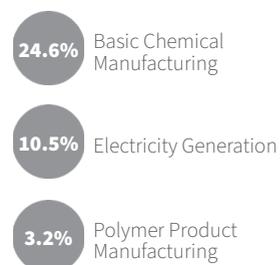
TOP THREE INPUTS



WATER



TOP THREE INPUTS



GREENHOUSE GAS EMISSIONS

