

# kg Polypropylene (PP) sheet

Polypropylene (PP) is a thermoplastic polymer and second most produced plastic. It has similar properties to polyethylene (PE), including high impact strength and ductility, but is harder and more resistant to heat.

PP is produced by polymerising chains of propylene monomers through different catalysts. Different catalysts can result in different PP properties. PP is then moulded or extruded. Different additives can enhance the properties of PP, e.g. antistatic, dust resistant, and colouring.

PP is mostly used in construction as a membrane (including as a water vapour membrane).

**Category** *Plastics*  
**Type** *Polypropylene*  
**Functional unit** *kg*  
**Specific heat** *1 622 J/(kg·K)*  
**Density** *900 kg/m<sup>3</sup>*

**Common uses**  
*Vapour barrier, general purpose membrane*

**Process name**  
*Polypropylene, extruded film (custom)*

**Input-output sector**  
*Polymer Product Manufacturing*

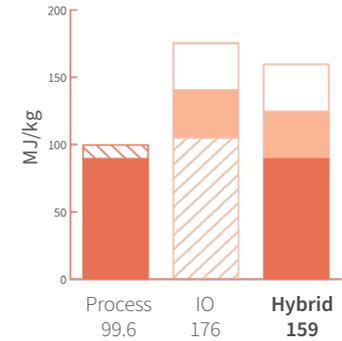
**Further information**  
[doi.org/10.26188/5da556bad2165](https://doi.org/10.26188/5da556bad2165)

## Material variations

	Unit	Energy (MJ/unit)	Water (L/unit)	GHG emissions (kgCO <sub>2</sub> e/unit)
<i>Polypropylene (PP) sheet</i>	kg	159	186	7.4
PP sheet - 2 mm	m <sup>2</sup>	287	335	13.4
PP sheet - 3 mm	m <sup>2</sup>	431	502	20.0
PP sheet - 4 mm	m <sup>2</sup>	574	670	26.7
PP sheet - 6 mm	m <sup>2</sup>	861	1 005	40.1
PP sheet - 10 mm	m <sup>2</sup>	1 435	1 675	66.8
PP sheet - 12 mm	m <sup>2</sup>	1 722	2 010	80.2
PP sheet - 15 mm	m <sup>2</sup>	2 153	2 512	100

## TOP THREE INPUTS

- 50.9%** polypropylene, PP, at factory gate/AU U
- 5.1%** Petroleum and Coal Product Manufacturing
- 5.0%** Extrusion, plastic film/RER U/AusSD U

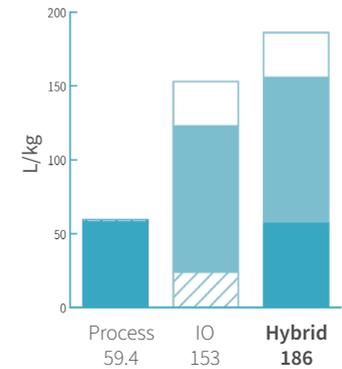


## ENERGY



## TOP THREE INPUTS

- 24.1%** Extrusion, plastic film/RER U/AusSD U
- 22.7%** Other Agriculture
- 6.4%** Polypropylene, PP, at factory gate/AU U

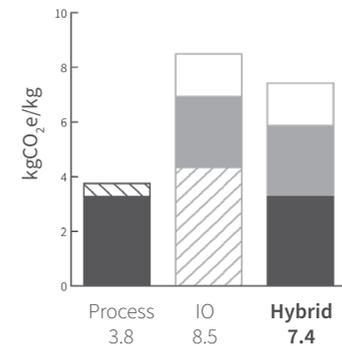


## WATER



## TOP THREE INPUTS

- 34.2%** Polypropylene, PP, at factory gate/AU U
- 9.8%** Extrusion, plastic film/RER U/AusSD U
- 3.8%** Petroleum and Coal Product Manufacturing



## GREENHOUSE GAS EMISSIONS

