

kg Polyvinyl chloride (PVC) film

Polyvinyl chloride (PVC) is a plastic polymer characterised by good thermal and electrical insulation properties. PVC can be rigid (see uPVC) or soft. PVC is the third most produced plastic, globally.

PVC is produced by polymerising vinyl chloride monomers, mostly through suspension polymerisation, followed by emulsion and bulk polymerisation. This generates heat and requires cooling and water. The resulting sludge is filtered, centrifuged, and dried, before being converted to pellets. These can be molten for moulding or extrusion. Multiple additives can be added to PVC to enhance its properties, most importantly phthalate to soften the PVC.

PVC film is used in construction for flooring and electrical cable insulation.

Category *Plastics*
Type *Polyvinyl Chloride*
Functional unit *kg*
Specific heat *950 J/(kg·K)*
Density *1 390 kg/m³*

Common uses
Electrical cable insulation, flooring, cladding

Process name
PVC, calendered (custom)

Input-output sector
Polymer Product Manufacturing

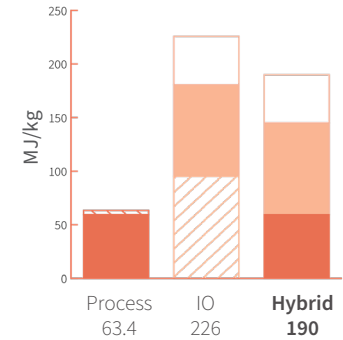
Further information
doi.org/10.26188/5da5571457bf1

Material variations

Unit	Energy (MJ/unit)	Water (L/unit)	GHG emissions (kgCO ₂ e/unit)	
<i>Polyvinyl chloride (PVC) film</i>	<i>kg</i>	<i>190</i>	<i>758</i>	<i>11.2</i>
PVC film - 19 µm	m ²	5.0	20	0.3
PVC film - 25 µm	m ²	6.6	26.3	0.4

TOP THREE INPUTS

- 30.5% Basic Chemical Manufacturing
- 5.9% Thermoforming, with calendering/RER U/ AusSD U
- 3.4% Road Transport

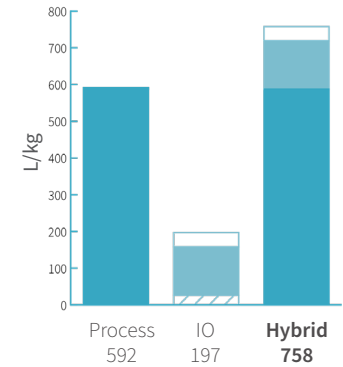


ENERGY



TOP THREE INPUTS

- 13.7% Thermoforming, with calendering/RER U/ AusSD U
- 7.2% Other Agriculture
- 3.0% Basic Chemical Manufacturing

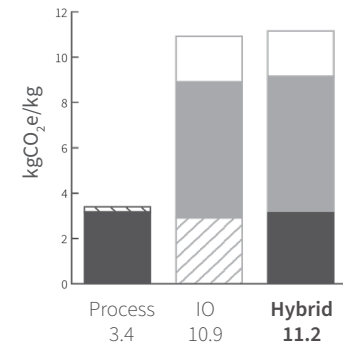


WATER



TOP THREE INPUTS

- 32.4% Basic Chemical Manufacturing
- 9.5% Thermoforming, with calendering/RER U/ AusSD U
- 2.1% Wholesale Trade



GREENHOUSE GAS EMISSIONS

