Nylon carpet

Carpet is a common flooring material, widely used for residential and commercial flooring applications. It has good insulative properties and medium - high durability. It is typically graded using surface pile mass (g/m^2), with a higher g/m^2 generally indicating a higher quality and more durable product.

Tufted carpet is available in three standard styles: 'cut pile', 'loop pile' and 'cut & loop pile'. Within these styles, there are significant variations in durability, aesthetic qualities and cost. During production, carpet fibre is sewn directly onto a primary backing fabric and then bonded (commonly using latex) onto a secondary backing layer (hessian, or similar). Common carpet fibres include: Nylon, Polypropylene, Wool, Wool-blends, Polyester and Acrylic.

Nylon carpet is generally cheaper than wool alternatives. It is stain resistant and holds its colour well. High durability and toughness make it ideal for use in high-traffic areas.

Category *Miscellaneous*

Type *Nylon*

Functional unit *m^2*

Specific heat *2 500 J/(kg·K)*

Density *350 kg/m^3*

Common uses
Residential and commercial flooring

Process name
Carpet, tufted, 100% nylon, 600-700g/m2 (custom)

Input-output sector
Polymer Product Manufacturing

Further information
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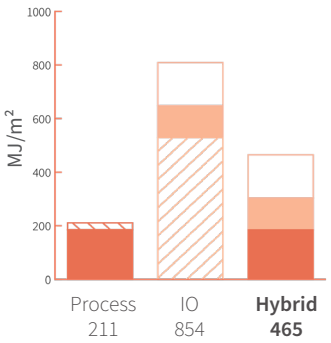
Material variations	Unit	Energy (MJ/unit)	Water (L/unit)	GHG emissions ($kgCO_2e$/unit)
Tufted carpet, nylon - average	*m^2*	*465*	*1 149*	*31.2*
Tufted carpet, nylon - quality	m^2	484	1 161	33.3
Tufted carpet, nylon - prestige	m^2	785	1 866	55.3
Woven carpet, nylon - average	m^2	364	908	23.9
Woven carpet, nylon - quality	m^2	376	911	24.8

TOP THREE INPUTS

- 16.9% Nylon 6, at plant/RER U/ AusSD U
- 8.4% Thermoforming, with calendering/RER U/ AusSD U
- 8.2% Latex, at plant/RER S/ AusSD U

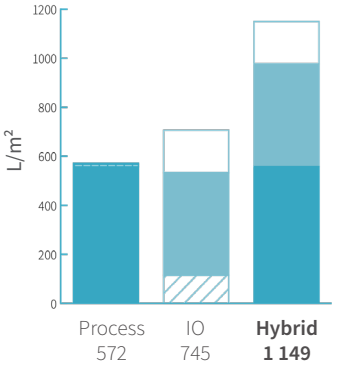


ENERGY

465 MJ/m²

TOP THREE INPUTS

- 24.2% Thermoforming, with calendering/RER U/ AusSD U
- 17.9% Other Agriculture
- 11.8% Nylon 6, at plant/RER U/ AusSD U

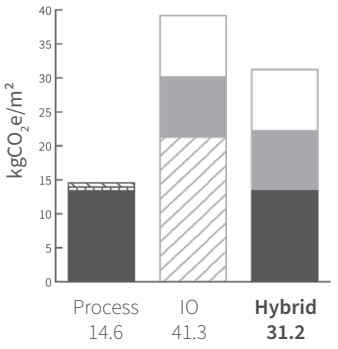


WATER

1 149 L/m²

TOP THREE INPUTS

- 21.6% Nylon 6, at plant/RER U/ AusSD U
- 9.9% Thermoforming, with calendering/RER U/ AusSD U
- 4.0% Latex, at plant/RER S/ AusSD U



GREENHOUSE GAS EMISSIONS

31.2 $kgCO_2e/m^2$