

Ketron® Sterra™ 1000 PEEK

Poly-ether-ether-ketone

mcam.com

Ketron® Sterra™ 1000 Polyetheretherketone PEEK is an unfilled, general purpose grade that offers the highest elongation and toughness of all materials in the PEEK family. Ideal for instrument and seal components, where ductility and inertness are critical, Ketron® Sterra™ 1000 PEEK shapes are known for their ability to fit within a variety of applications and industries. As part of the Sterra™ product portfolio, this material contains recycled content and exhibits a significantly lower carbon footprint compared to similar materials derived from virgin feedstocks.

Recycled Content (post-industrial material)	25%
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Ketron® Sterra™ 1000 PEEK			Comparison with a generic material based on 100% virgin resin	
Life Cycle Impact Assessment Results	Units	Indicative Values	Units	Indicative Values
	Climate change	kg CO ₂ eq / kg product	kg CO ₂ eq / kg product	17.97
	Acidification	Mole of H ⁺ eq. / kg product	Mole of H ⁺ eq. / kg product	0.058
	Ecotoxicity freshwater	CTUe / kg product	CTUe / kg product	140.12
	Particulate Matter	Disease inc. / kg product	Disease inc. / kg product	5.05E-07
	Human toxicity, non-cancer - total	CTUh / kg product	CTUh / kg product	2.06E-07
	Resource use, fossils	MJ / kg product	MJ / kg product	373.59
	Resource use, mineral and metals	kg Sb eq. / kg product	kg Sb eq. / kg product	9.15E-06
	Water use	m ³ world equiv. / kg product	m ³ world equiv. / kg product	1.54
	Environmental footprint, EF v3.0	eco points / kg product	eco points / kg product	1.28E-03
More aggregated LCA endpoints are available on request.				

Fundamentals	Life cycle assessment was calculated according to ISO 14040/44 (ISO, 2006; ISO/TC, 2006) using a mix of primary and secondary data including the Sphera MLC database version 2022.1. The analysis was performed with Sphera LCA for Experts Software (former GaBi 10.6). The total environmental footprint was calculated with the EFv3.0 method and the carbon footprint was calculated with the IPCC 2013 method. In accordance with the life cycle assessment approach, all processes within the cradle-to-gate system boundary were considered, 1 wt. % cut-off rule and no allocation were applied. The further processing, the use phase and the end-of-life phase of the material products are excluded from the system boundary. The LCA has undergone a critical review by an independent third party according to ISO 14040/44. Value(s) indicated are global average(s) and may be based on a varying number of manufacturing locations, including single location based only.
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Miscellaneous	Mitsubishi Chemical Group's production sites for the manufacturing of this material are certified according to ISO 9001:2015 and ISO 14001:2015. Production sites are using electricity from Renewable Sources (RE).
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ENVIRONMENTAL PRODUCT DATA SHEET

Product name is a registered trademark of Mitsubishi Chemical Advanced Materials

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