

Ketron® Sterra™ CA30 PEEK

Poly-ether-ether-ketone

mcam.com

Ketron® Sterra™ CA30 Polyetheretherketone PEEK is a 30% carbon fiber-reinforced grade that exhibits even higher stiffness, mechanical strength, and creep and wear resistance than Ketron® GF30 PEEK. With a significantly reduced thermal expansion, optimum load carrying capabilities, and high thermal conductivity rates, Ketron® Sterra™ CA30 PEEK components are often favored for their ability to extend part life and rapidly dissipate heat in bearing applications. 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)	%	70%
---	---	-----

ENVIRONMENTAL PRODUCT DATA SHEET

	Ketron® Sterra™ CA30 PEEK		Comparison with a generic material based on 100% virgin resin		
	Units	Indicative Values	Units	Indicative Values	
LCA Endpoints	Climate change	kg CO ₂ eq	10.98	kg CO ₂ eq	24.75
	Acidification	Mole of H ⁺ eq.	0.018	Mole of H ⁺ eq.	0.059
	Ecotoxicity freshwater	CTUe	49.60	CTUe	153.47
	Particulate Matter	Disease inc.	1.10E-07	Disease inc.	4.66E-07
	Human toxicity, non-cancer - total	CTUh	9.68E-08	kg NMVOC eq.	2.49E-07
	Resource use, fossils	MJ	176.34	MJ	460.13
	Resource use, mineral and metals	kg Sb eq.	5.98E-06	kg Sb eq.	1.04E-05
	Water use	m ³ world equiv.	0.18	m ³ world equiv.	1.22
	Environmental footprint, EF v3.0	eco points	6.50E-04	eco points	1.61E-03
	<i>More aggregated LCA endpoints are available on request.</i>				

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 **GaBi 10.6** database (Sphera, 2022). 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 environmentally relevant processes within the system boundary are recorded and evaluated as far as possible. This LCA looks at the ecological impacts 'from cradle to gate' of the MCA products. 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.

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).

Product name is a registered trademark of Mitsubishi Chemical Advanced Materials

This data sheet and any data and specifications presented on our website shall provide promotional and general information about the Engineering Plastic Products (the "Products") manufactured and offered by Mitsubishi Chemical Advanced Materials and shall serve as a preliminary guide. All data and descriptions relating to the Products are of an indicative nature only. Neither this data sheet nor any data and specifications presented on our website shall create or be implied to create any legal or contractual obligation.

Any illustration of the possible fields of application of the Products shall merely demonstrate the potential of these Products, but any such description does not constitute any kind of covenant whatsoever. Irrespective of any tests that Mitsubishi Chemical Advanced Materials may have carried out with respect to any Product, Mitsubishi Chemical Advanced Materials does not possess expertise in evaluating the suitability of its materials or Products for use in specific applications or products manufactured or offered by the customer respectively. The choice of the most suitable plastics material depends on available chemical resistance data and practical experience, but often preliminary testing of the finished plastics part under actual service conditions (right chemical, concentration, temperature and contact time, as well as other conditions) is required to assess its final suitability for the given application.

It thus remains the customer's sole responsibility to test and assess the suitability and compatibility of Mitsubishi Chemical Advanced Materials' Products for its intended applications, processes and uses, and to choose those Products which according to its assessment meet the requirements applicable to the specific use of the finished product. The customer undertakes all liability in respect of the application, processing or use of the aforementioned information or product, or any consequence thereof, and shall verify its quality and other properties.

Copyright © 2023 The Mitsubishi Chemical Advanced Materials group of companies. All rights reserved. - Date of issue / revision: March 27, 2023