

Epratone® PEEK CA30

A high-performance plastics filled with 30% carbon fibers, and therefore a low friction coefficient, good thermal conductivity and high wear resistance. The material also has a high mechanical strength, stiffness and hardness, a very high temperature resistance and an excellent chemical and hydrolysis resistance.

General properties	Test method	Value	Unit
ISO code:	ISO 1183	PEEK CA30	
Density:	ISO 1183-1	1,4	g/cm3
Water absorption in Air (23°C / 50% RH)	ISO 62	0,16	%
Water absorption in Air (23°C / 100% RH)	ISO 62	0,35	%
Resistance to hot water	n/a	+	
Weather resistance	n/a	-	
Mechanical properties			
Elongation at break:	ISO 527	3,5	%
Ball indentation hardness	ISO 2039	298	MPa
Tensile modules of elasticity	ISO 527	8500	MPa
Charpy impact strength - notched	ISO 179	5	kJ/m2
Charpy impact strength - unnotched	ISO 179	50	kJ/m2
Compressive stress at 1%	n/a	40	MPa
Coefficient of friction		0,2-0,3	
Thermal properties			
Melting temperature	n/a	340	°C
Max. allowable service temp (short period)	n/a	310	°C
Max. allowable service temp (long period)	n/a	250	°C
Min. service temperature	n/a	-20	°C
Coefficient of linear expansion	n/a	25	x10 ⁻⁶ m/(m*K)
Flammability	UL94	V0	
Electrical properties			
Dielectric dissipation (at 1MHz)	ISO 60250	n/a	Ω
Electric strength	ISO 60243	n/a	kV/mm
Volume resistivity	ISO 60093	<10 ⁴	Ω.cm

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