

Epratone® PEEK BG-T

This material has a unique combination of high mechanical strength, high temperature resistance and excellent chemical resistance. These properties make it one of the most versatile high performance plastics today. This new, internally lubricated material offers a very high wear resistance and is therefore particularly suitable for all kinds of applications where extreme wear properties are required at an operating temperature from 100 to 200 °C.

General properties	Test method	Value	Unit
ISO code:	ISO 1183	PEEK TF	
Density:	ISO 1183-1	1,4	g/cm3
Water absorption in Air (23 °C / 50% RH)	ISO 62	0,18	%
Water absorption in Air (23 °C / 100% RH)	ISO 62	0,4	%
Resistance to hot water	n/a	+	
Weather resistance	n/a	-	
Mechanical properties			
Elongation at break:	ISO 527	6	%
Ball indentation hardness	ISO 2039	195	MPa
Tensile modulus of elasticity	ISO 527	3700	MPa
Charpy impact strength - notched	ISO 179	2	kJ/m2
Charpy impact strength - unnotched	ISO 179	30	kJ/m2
Compressive stress at 1%	n/a	22	MPa
Coefficient of friction		0,25-0,35	
Thermal properties			
Melting temperature	n/a	340	°C
Max. allowable service temp (short period)	n/a	300	°C
Max. allowable service temp (long period)	n/a	250	°C
Min. service temperature	n/a	-20	°C
Coefficient of linear expansion	n/a	55	x10 ⁻⁶ m/(m*K)
Flammability	UL94	V0	
Electrical properties			
Dielectric dissipation (at 1MHz)	ISO 60250	0,002	Ω
Electric strength	ISO 60243	20	kV/mm
Volume resistivity	ISO 60093	>10 ¹⁴	Ω.cm

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