

Multiplast PEEK CF30

Multiplast PEEK CF30, Polyether ether ketone with a carbon filling of 30%, is a high temperature-resistant thermoplastics with higher strength compared to Multiplast PEEK due to addition of carbon fibers.

Multiplast PEEK CF30 carbon has:

- Very good impact strength a low temperatures
- High mechanical fatigue strength
- Very low tendency to creep
- Good sliding properties
- Extremely abrasion resistant
- Good wear resistance
- Long-term service temperatures up to +260 °C
- Excellent mechanical properties (even at high temperatures)
- Excellent Chemical Resistance

Properties	Units		
Modulus of elasticity (tensile test)	MPa	6800	
Tensile strength	MPa	122	
Tensile strength at yield	MPa	122	
Elongation at yield	%	7	
Elongation at break	%	7	
Modulus of elasticity (flexural test)	MPa	6800	
Flexural strength	MPa	193	
Compression modulus	MPa	5000	
Compressive strength (1% / 2%)	MPa	25 / 47	
Impact strength (Charpy)	kJ / m ²	62	
Notched impact strength (Charpy)	kJ / m ²	-	
Ball indentation hardness	MPa	355	
Glass transition temperature	°C	147	
Melting temperature	°C	341	
Service temperature	short term	°C	300
	long term	°C	260
Thermal expansion	23 °C – 60 °C	10 ⁻⁵ K ⁻¹	4
	23 °C – 100 °C	10 ⁻⁵ K ⁻¹	4
Specific heat	J / (g x K)	1,2	
Thermal conductivity	W / m K	0,66	

Properties	Units	
Specific surface resistance	Ω	10 ⁸
Specific volume resistance	$\Omega \times \text{cm}$	10 ¹¹
Dielectric strength	kV / mm	-
Resistance to tracking (CTI)	V	-
Water absorption 24 h / 96 h (@ 23 °C)	%	0,02 / 0,03
Resistance to hot water / bases	-	Good resistance
Resistance to weathering	-	Poor resistance
Flammability	UL94	V0
Density	g/cm ²	1,38
Colour	-	Black / Opaque

Availability:

Sheet: Size: 500 x 3000 mm (smaller sizes are possible)
 Thickness: 20 mm

Rod: Length: 3000 mm (shorter lengths are possible)
 Diameter 16, 20, 30 and 40 mm

Cut pieces: On request

Parts: Finished products according to drawing