

# Technical datasheet

## PEEK mod. + PTFE/CF\*\*/CS\*\*\* (Polyetheretherketone modified)

<b>Example of application</b>
› mechanical engineering (parts with extremely high thermal and mechanical load); gear wheels

<b>Advantages</b>	<b>Disadvantages</b>
› excellent dimensional stability › excellent anti-friction properties › very good mechanical properties	› comparatively expensive

<b>Basic information</b>	<b>Specification</b>
<b>Format</b>	<b>round material:</b> 8 mm up to 80 mm available in 3 m length <b>sheets:</b> 6 mm up to 60 mm available in 3 m x 0.62 m

Physical properties	Standard term/Specification*	Unit	Testing method
Density	1.46	g/cm <sup>3</sup>	ISO 1183
Moisture ingress	0.2	%	DIN EN ISO 62

Mechanical properties	Standard term/Specification*	Unit	Testing method
Tensile strength	120	MPa	DIN EN ISO 527
Elongation at break	3	%	DIN EN ISO 527
E-Module	7.800	MPa	DIN EN ISO 527
Notch toughness	n.sp.	kJ/m <sup>2</sup>	ISO 179
Rochwellhardness	220	MPa	DIN EN ISO 2039

Thermal properties	Standard term/Specification*	Unit	Testing method
Thermal conductivity	0.24	W/(m·K)	DIN 52612
Linear thermal expansion coefficient based on a fixed initial length	0.3	K <sup>-1</sup> · 10 <sup>-4</sup>	DIN 53752
	0.6		At initial length of 1.000 mm and a temperature difference of 20 °C.
Max. operating temperature, long-term	250	°C	
Max. operating temperature, short-term	310	°C	
Min. operating temperature, long-term	-30	°C	

Electrical properties	Standard term/Specification*	Unit	Testing method
Resistance	10 <sup>7</sup>	Ω·cm	DIN IEC 60093
Outer surface coefficient	10 <sup>7</sup>	Ω	DIN IEC 60093
Puncture resistance	n.sp.	kV/mm	DIN EN 60243

<b>Legend</b>
n.sp. = not specified    **CF = carbon fibre    ***CS = graphite

Should you require binding and exact values, please ask for the appropriate factory certificate. This may incur additional costs. Please note that all specifications are standard values only, which are subject to production-related fluctuations.

\*Higher specification on request.

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