Technical datasheet

PPS (Polyphenylene sulfide)

Example of application
› electrical industry; automotive industry; aircraft industry

Advantages	Disadvantages
› high continuous service temperature › high mechanical stiffness and tensile strength › very good chemical resistance	› not resistant to oxidation › low range of dimensions

Basic information	Specification
Format	**round material:** on request **sheets**: on request

Physical properties	Standard term/Specification*	Unit	Testing method
Density	1.35	g/cm^3	ISO 1183
Moisture ingress	0.02	%	DIN EN ISO 62

Mechanical properties	Standard term/Specification*	Unit	Testing method
Tensile strength	90	MPa	DIN EN ISO 527
Elongation at break	3	%	DIN EN ISO 527
E-Module	4.150	MPa	DIN EN ISO 527
Notch toughness	n.sp.	kJ/m^2	ISO 179
Rochwellhardness	190	MPa	DIN EN ISO 2039

Thermal properties	Standard term/Specification*	Unit	Testing method
Thermal conductivity	n.sp.	W/(m·K)	DIN 52612
Linear thermal expansion coefficient based on a fixed initial length	n.sp.	$K^{-1} \cdot 10^{-4}$	DIN 53752
	n.sp.	mm	At initial length of 1.000 mm and a temperature difference of 20 °C.
Max. operating temperature, long-term	220	°C	
Max. operating temperature, short-term	260	°C	
Min. operating temperature, long-term	- 20	°C	

Electrical properties	Standard term/Specification*	Unit	Testing method
Resistance	10^{13}	Ω·cm	DIN IEC 60093
Outer surface coefficient	10^{15}	Ω	DIN IEC 60093
Puncture resistance	n.sp.	kV/mm	DIN EN 60243

Legend
n.sp. = not specified

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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