

Technical datasheet

PI (Polyimid)

Example of application
› aviation and space industry; cryogenic engineering; electronic industry; electrical engineering; food technology; mechanical engineering; nuclear technology and vacuum engineering

Advantages	Disadvantages
› extremely high thermal and mechanical load › very high temperature resistance › chemical resistant › resistant to energetic radiation › high creep resistance	› low range of dimensions › high price product

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

Physical properties	Standard term/Specification*	Unit	Testing method
Density	1.29	g/cm ³	ISO 1183
Moisture ingress	0.6	%	DIN EN ISO 62

Mechanical properties	Standard term/Specification*	Unit	Testing method
Tensile strength	116	MPa	DIN EN ISO 527
Elongation at break	3.8	%	DIN EN ISO 527
E-Module	3.600	MPa	DIN EN ISO 527
Notch toughness	5.0	kJ/m ²	ISO 179
Rochwellhardness	n.sp.	MPa	DIN EN ISO 2039

Thermal properties	Standard term/Specification*	Unit	Testing method
Thermal conductivity	0.22	W/(m·K)	DIN 52612
Linear thermal expansion coefficient based on a fixed initial length	n.sp.	K ⁻¹ · 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	n.sp.	°C	
Max. operating temperature, short-term	n.sp.	°C	
Min. operating temperature, long-term	n.sp.	°C	

Electrical properties	Standard term/Specification*	Unit	Testing method
Resistance	10 ¹⁷	Ω·cm	DIN IEC 60093
Outer surface coefficient	10 ¹⁶	Ω	DIN IEC 60093
Puncture resistance	20	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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plastics