

Technical datasheet

PAI (Polyamidimid)

Example of application
› aviation and space industry; cryogenic engineering; chemical plant engineering; electrical engineering; mechanical engineering; nuclear technology and vacuum engineering; plug-in connection (high temperature)

Advantages	Disadvantages
› very good electro-insulating properties › high thermal and mechanical load › low thermal expansion › 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	1.40	g/cm ³	ISO 1183
Moisture ingress	0.14	%	DIN EN ISO 62

Mechanical properties	Standard term/Specification*	Unit	Testing method
Tensile strength	110	MPa	DIN EN ISO 527
Elongation at break	5.5	%	DIN EN ISO 527
E-Module	4.500	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	n.sp.	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	standard value
Max. operating temperature, short-term	n.sp.	°C	standard value
Min. operating temperature, long-term	n.sp.	°C	standard value

Electrical properties	Standard term/Specification*	Unit	Testing method
Resistance	10 ¹⁷	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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plastics