

OVERVIEW TECHNICAL DATA

ELTIMID® HP

Material description	High-temperature polyimide, natural
Colour	reddish brown
Application	Electrical and thermal insulation parts for machine engineering and process industry
Available as	blanks, rods and components as per drawing

Mechanical and physical properties

Properties	Test method/standard	Unit	Value
Tensile strength	DIN EN ISO 527	MPa	140
Tensile modulus		MPa	3581
Flexural strength	DIN EN ISO 178	MPa	188
Flexural strain		%	11,1
Flexural modulus		MPa	3705
Compressive strength	DIN EN ISO 604	MPa	470
Compressive stress at 10 % compression		MPa	165
Compressive modulus		MPa	1960
Shore hardness	EN ISO 868	Shore D	90
Specific density	-	g/cm ³	1,38
Water absorption 24 h at 80 °C 48 h at 80 °C	DIN EN ISO 62	%	1,7
			2,2

Thermal properties

Properties	Test method/standard	Unit	Value
Long-term service temperature	-	°C	280
Short-term service temperature < 3h < 1h (under minimal load)	-	°C	400 450
Specific heat capacity	DSC	J/g x K	0,925
Thermal conductivity	DSC	W/m x K	0,22
Glass transition temperature T _g (tan delta _{max})	DTMA	°C	361

Electrical characteristics

Properties	Test method/standard	Unit	Value
Dielectric constant 1 kHz 10 kHz 100 kHz	IEC 60250	-	4,2 4,1 4,1
Dielectric dissipation factor 1 kHz 10 kHz 100 kHz			-
Surface resistivity	DIN IEC 93	Ω	5 x 10 ¹⁵
Volume resistivity		Ωm	8 x 10 ¹³
Electric strength	DIN IEC 60243-1	kV/mm	21,8
Flammability rating	UL 94	-	V0

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We reserve the right to make changes in the context of further technical developments. The guide values listed in this data sheet are not contractual data.

Please contact our applications and sales engineers to clarify the suitability of the material for your application.