

TECHNICAL DATA SHEET

PA6G OIL

Property	Method	Units	Specification
Physical			
Density	ISO 1183 DIN 53479	g/cm ³	1.14
Water absorption in air 50% r.h.	ISO 62 DIN 53715	%	1.4
Absorption 23 °C in water-saturation	ISO 62 DIN 53495	%	4.8
Mechanical			
Tensile stress at yield at break	ISO 527 DIN53455	N/mm ²	50 (70)
Elongation at break	ISO 527 DIN53455	%	120 (35)
Tensile Modulus of elasticity	ISO 527 DIN53455	N/mm ²	1700 (3100)
Compression test 1% strain 1000h	ISO 899 DIN53444	N/mm ²	6 (20)
Impact strength Charpy 7,5 J	ISO R179 DIN53453		no break
Notched impact strength Charpy	ISO179/3C DIN53453	KJ/ mm ²	23 (8)
Ball indentation hardness	ISO2039.1 DIN53456	N/mm ²	80 (150)
Rockwell hardness (dry)	ISO2039.2 DIN53456		M82
Coefficient of friction to steel	ISO 8295 DIN 53375		0,34
Thermal			
Melting point	ISO 3146	°C	220
Thermal conductivity	ISO 22007.2 DIN 52612	W/(km)	0,28
Deformation at temperature HDT	ISO75 DIN 53461	°C	90
Linear expansion coefficient 23-60°C	ISO 11359 DIN 53752	K ⁻¹	80 x 10 ⁻⁶
Operating temperature continuously		°C	100
Operating temperature short period-no load		°C	160
Minimum operating temperature		°C	-30
Flammability UL 94 (3-6 mm thickness)	UL94		HB
Oxygen index (LOI)	DIN 22117 ISO4589	%	25
Electrical			
Dielectric constant at 10 MHz	ISO 250 DIN 53483		7 (3,7)
Dielectric strength	ISO 243 DIN 53481	KV/mm	30
Volume resistivity	ISO 93 DIN 53482	Ωcm	10 ¹²
Dissipation factor tan Δ at 1 MHz	ISO 250 DIN 53483		0.05

