

# TECHNICAL DATA SHEET

## PA6

Property	Method	Units	Specification
<b>Physical</b>			
Density	ISO 1183 DIN 53479	g/cm <sup>3</sup>	1.14
Water absorption in air 50% r.h.	ISO 62 DIN 53715	%	2.8
Absorption 23 °C in water-saturation	ISO 62 DIN 53495	%	9
<b>Mechanical</b>			
Tensile stress at yield at break	ISO 527 DIN53455	N/mm <sup>2</sup>	54 (80)
Elongation at break	ISO 527 DIN53455	%	180 (60)
Tensile Modulus of elasticity	ISO 527 DIN53455	N/mm <sup>2</sup>	1700 (3000)
Compression test 1% strain 1000h	ISO 899 DIN53444	N/mm <sup>2</sup>	6 (18)
Impact strength Charpy 7,5 J	ISO R179 DIN53453		No break
Notched impact strength Charpy	ISO179/3C DIN53453	KJ/ mm <sup>2</sup>	25 (5)
Ball indentation hardness	ISO2039.1 DIN53456	N/mm <sup>2</sup>	80 (155)
Rockwell hardness (dry)	ISO2039.2 DIN53456		M85
Coefficient of friction to steel	ISO 8295 DIN 53375		0.42
<b>Thermal</b>			
Melting point	ISO 3146	°C	220
Thermal conductivity	ISO 22007.2 DIN 52612	W/(km)	0.25
Deformation at temperature HDT	ISO75 DIN 53461	°C	83
Linear expansion coefficient 23-60°C	ISO 11359 DIN 53752	K <sup>-1</sup>	90*10 <sup>-6</sup>
Operating temperature continuously		°C	88
Operating temperature short period-no load		°C	150
Minimum operating temperature		°C	40
Flammability UL 94 (3-6 mm thickness)	UL94		HB V2
Oxygen index (LOI)	DIN 22117 ISO4589	%	24
<b>Electrical</b>			
Dielectric constant at 10 MHz	ISO 250 DIN 53483		7 (3,6)
Dielectric strength	ISO 243 DIN 53481	KV/mm	25
Volume resistivity	ISO 93 DIN 53482	Ωcm	10 <sup>12</sup>
Dissipation factor tan Δ at 1 MHz	ISO 250 DIN 53483		0.06

