

# Material Data Sheet

Het is de verantwoordelijkheid van de eindgebruiker om de geschiktheid volledig te testen voor de specifieke toepassing. Aan dit document kunnen geen rechten worden ontleend, het is alleen ter indicatie.

## Material: Pa6 with oil

### Application examples

- Gears
- Sliding bearings
- Sliding strips & -plates
- Castors
- Teleskopische guide
- chain guiding strips / chain deflections.

Colours	yellow			
Mechanical values	ISO / EN / DIN	Dry	Humid	
Density	ISO 1183	1,15	--	g/cm <sup>3</sup>
Yield stress	ISO 527	80	60	MPa
Elongation at break	ISO 527	40	100	%
Modulus of elasticity from tensile test	ISO 527	2800	1700	MPa
Modulus of elasticity from bending test	ISO 178	3000	1900	MPa
Flexural Strength	ISO 178	135	55	MPa
Impact strength <sup>1)</sup>	ISO 179	without break	--	KJ/m <sup>2</sup>
Notched-bar Impact Strength	ISO 179	>5	>15	KJ/m <sup>2</sup>
Ball indentation hardness H358/30	ISO 2039-1	150	100	MPa
Creep rate stress at 1% Dehnung <sup>2)</sup>	DIN EN ISO 899-1	>7	--	MPa
Sliding friction coefficient against steel (dry running) <sup>3)</sup>	-	0,15	0,20	-
Sliding wear against steel (dry running) <sup>3)</sup>	-	0,03	--	µm/km
Thermal values				
Melting temperature	ISO 3146	220	--	°C
Thermal conductivity	DIN EN 12939	0,23	--	W/(K*m)
Specific thermal capacity	-	1,7	--	J/(g*K)
Coefficient of thermal expansion (linear) <sup>4)</sup>	-	7-8	--	10 <sup>-5</sup> *K <sup>-1</sup>
Operating temperature range (long-term) <sup>5)</sup>	-	-40 bis +105	--	°C
Operating temperature range (short-term) <sup>5)</sup>	-	+160	--	°C
Fire behaviour	UL 94, IEC 60695	HB	--	-
Electrical values				
Dielectric constant <sup>6)</sup>	IEC 60250	3,7	--	-
Dielectric loss factor <sup>6)</sup>	IEC 60250	0,03	--	-
Specific volume resistance	IEC 60093	10 <sup>15</sup>	10 <sup>12</sup>	Ω *cm
Surface resistance	IEC 60093	10 <sup>13</sup>	10 <sup>12</sup>	Ω
Dielectric strength	IEC 60243	50	20	kV/mm
Creep current resistance	IEC 60112	CTI 600	--	-
Miscellaneous data				
Moisture absorption in normal climate until saturated	DIN EN ISO 62	1,8	--	%
Water absorption until saturated	DIN EN ISO 62	5,5	--	%

<sup>1)</sup> measured with a pendulum impact testing machine 0,1 DIN 51 222

<sup>2)</sup> tension resulting in 1% total elongation after 1.000h

<sup>3)</sup> against steel, hardened and ground

P = 0,05 Mpa; V = 0,6m/s; t = 60 °C near running surface

<sup>4)</sup> For a temperature range of + 23 °C up to + 60 °C

<sup>5)</sup> Experience values established with finished parts that are not under any stress in heated air, depending on the type and form of heat exposure, short-term = max. 1h, long-term=months

<sup>6)</sup> at 10<sup>6</sup> Hz