

### Material Data Sheet

Trade name	PTFE+23% carbon+2% graphite (extruded)		
DIN EN ISO 1043 designation	PTFE		
Modification	Carbographite		
Properties	Unit	Test method	Value
<b>General Properties</b>			
Density	g/cm <sup>3</sup>	ASTM D 792	2,08
Water absorption	%	ASTM D 570	<0,01
Flammability ATB	sec	ASTM D 635	<5
AEB	mm	ASTM D 635	<5
Wear factor (K) (PV=100)	(3)		15
<b>Mechanical Properties</b>			
Tensile strength	MPa	ASTM D 4894	13
Elongation at break	%	ASTM D 4894	60
Hardness	Skala D	ASTM D 2240	64
Deformation under load (24h, 13,7MPa, 23°C)	%	ASTM D 621	6
Friction coefficient static		ASTM D 3028 (1)	
Friction coefficient dynamic		ASTM D 3028 (1)	0,12
Compressive strength 1% deformation	MPa	ASTM D 695	10
<b>Thermal Properties</b>			
Coefficient of linear expansion from 25 to 100°C	°C <sup>-1</sup>	ASTM D 696	7 x 10 <sup>-5</sup>
Thermal conductivity	W/mK	ASTM C 177	0,20
Service temperature range	°C		-200 / +260
<b>Electrical Properties</b>			
Dielectric strength (in air, thickness 0,125mm)	kV/mm	ASTM D 149	80
Dielectric constant (50-109 Hz)		ASTM D 150	2,1
Dissipation factor		ASTM D 150	<0,0002
Volume resistivity	Ohm/cm	ASTM D 257	10 <sup>7</sup>
Surface resistivity	Ohm	ASTM D 257	10 <sup>6</sup>
Arc-resistance (420 sec)	sec	ASTM D 495	OK (2)

**Remarks:**

All the properties have been determined at 23°C.

(1) Speed 5 m/min; load 0,1 MPa, sliding surface steel roughness Ra = 0,4 ÷ 0,6 micron.

(2) Without defects.

(3) cm<sup>3</sup> x min x 10<sup>-8</sup> / kg x m x h