

PTFE

(Polytetrafluorethylene)

Colour: White

Density: 2.15g/cm³

Material Data Sheet

Mechanical Properties	Parameter	Value	Unit	DIN/EN/ISO/ASTM
Modulus of elasticity (tensile test)	1mm/min	2800	MPa	527-2
Tensile strength	-	22	MPa	D4894
Tensile strength at break	-	-	MPa	527
Elongation at break	-	220	%	D4894
Shore hardness	Shore D	55	-	D2240
Compression strength	1% deformation	5	MPa	D695
Ball indentation hardness	-	30	MPa	2039/1
Creep rupture strength after 1000hrs with static load	-	5	MPa	-
Coefficient of friction against hardened and ground steel P=0.05 N/mm ² , v=0.6m/s	-	0.08-0.10	-	-
Wear conditions as above	-	21	µm/km	-

Thermal Properties	Parameter	Value	Unit	DIN/EN/ISO/ASTM
Glass transition temperature	-	-20	°C	53765
Crystalline melting point	-	327	°C	53736
Service temperature	Short term	260	°C	-
Service temperature	Long term	260	°C	-
Thermal expansion (CLTE)	23-100°C, Long	13	10 ⁻⁵ K ⁻¹	D696
Specific heat	-	1	J/(g*K)	-
Thermal conductivity	-	0.20	W/(K*m)	C177

Electrical Properties	Parameter	Value	Unit	DIN/IEC/ASTM
Surface resistance	-	10 ¹⁶	Ω	D257
Specific volume resistance	-	10 ¹⁷	Ω*cm	D257
Dielectric strength	In air, thickness 0.125mm	80	kV/mm	D149
Dielectric constant	50-109Hz	2.1	-	D150

Other Properties	Parameter	Value	Unit	DIN/EN/ISO/IEC
Water absorption	24h/96h (23°C)	0.05/0.1	%	62
Flammability (UL94)	Corresponding to	-	-	60695-11-10



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The following information corresponds with our current knowledge and indicates our products and possible applications. We cannot give a legally binding guarantee of certain properties or the suitability for a specific application. Existing commercial patents must be observed. A definitive quality guarantee is given in our general conditions of sales. Unless otherwise stated, these values represent averages taken from injection moulding samples. We reserve the right of technical alterations.