Technical datasheet

PTFE (Polytetrafluorethylene)

Example of application
› sliding component; seals; linings

Advantages	Disadvantages
› excellent anti-friction properties › very high temperature resistance › excellent chemical resistance	› bad mechanical properties

Basic information	Specification
Format	**round material:** 5 mm up to 200 mm available in 2 m length **sheets:** 1 mm up to 150 mm available in 1.2 m x 1.2 m

Physical properties	Standard term/Specification*	Unit	Testing method
Density	2.14	g/cm^3	ISO 1183
Moisture ingress	n.sp.	%	DIN EN ISO 62

Mechanical properties	Standard term/Specification*		Unit	Testing method
	compressed	extruded		
Tensile strength	20	26,5	MPa	DIN EN ISO 527
Elongation at break	190	300	%	DIN EN ISO 527
E-Module	n.sp.		MPa	DIN EN ISO 527
Notch toughness	0.154		kJ/m^2	ISO 179
Rochwellhardness	22		MPa	DIN EN ISO 2039

Thermal properties	Standard term/Specification*	Unit	Testing method
Thermal conductivity	0.23	W/(m·K)	DIN 52612
Linear thermal expansion coefficient based on a fixed initial length	1.22	$K^{-1} \cdot 10^{-4}$	DIN 53752
	2.44	mm	At initial length of 1.000 mm and a temperature difference of 20 °C.
Max. operating temperature, long-term	260	°C	
Max. operating temperature, short-term	n.sp.	°C	
Min. operating temperature, long-term	-200	°C	

Electrical properties	Standard term/Specification*	Unit	Testing method
Resistance	10^{18}	Ω·cm	DIN IEC 60093
Outer surface coefficient	10^{17}	Ω	DIN IEC 60093
Puncture resistance	20	kV/mm	DIN EN 60243

Legend
n.sp. = not specified

Should you require binding and exact values, please ask for the appropriate factory certificate. This may incur additional costs. Please note that all specifications are standard values only, which are subject to production-related fluctuations.
*Higher specification on request.

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technical plastics

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