

Chemical Designation

PTFE (Polytetrafluorethylene)

Colour

brown-beige

Density

1.68 g/cm³

Fillers

40% polyimide

Main features

- very good slide and wear properties
- anti adhesive
- very good electrical insulation
- high toughness
- very good UV and weather resistance
- good chemical resistance
- sensitive to hydrolysis in higher thermal range

Target Industries

- cryogenic engineering
- electrical engineering
- food engineering
- fixture construction
- conveyor technology
- mechanical engineering

<i>Mechanical properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Tensile strength	50 mm/min	13	MPa	DIN EN ISO 527-1	
Impact strength (Charpy)	max 7.5 J	5.4	kJ/m ²	DIN EN ISO 179-1eU	
Notched impact strength (Charpy)	max 7.5 J	2.5	kJ/m ²	DIN EN ISO 179-1eA	
Shore hardness	Shore D	70		DIN EN ISO 868	
<i>Thermal properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Glass transition temperature		- 20	°C	DIN EN ISO 11357	(1) Found in public sources. Individual testing regarding application conditions is mandatory.
Service temperature	long-term	270	°C	-	1)
Thermal expansion (CLTE)	50-200°C	6.7 / -	10 ⁻⁵ K ⁻¹	DIN 53 752	2)
Specific heat		1	J/(g*K)	-	(2) Thermal expansion XY/Z axis
Thermal conductivity	40°C	0.25	W/(K*m)	ISO 8302	
<i>Electrical properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
volume resistivity	23°C	10 ¹⁷	Ω*cm	DIN IEC 60093	
<i>Other properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Water absorption	24 h in water, 23°C	1.12	%	DIN EN ISO 62	(1) Corresponding means no listing at UL (yellow card). The information might be taken from resin, stock shape or estimation. Individual testing regarding application conditions is mandatory.
Flammability (UL94)	corresponding to	V0		DIN IEC 60695-11-10;	1)

