

Chemical Designation

PTFE (Polytetrafluorethylene)

Colour

ochre-brown

Density

1.88 g/cm³

Fillers

20% 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
- textile industry

<i>Mechanical properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Tensile strength	50 mm/min	15	MPa	DIN EN ISO 527-1	
Shore hardness	Shore D	65		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	
Service temperature	long-term	250	°C	-	1)
Thermal expansion (CLTE)	50-200°C	14.4 / -	10 ⁻⁵ K ⁻¹	DIN 53 752	2)
Specific heat		1	J/(g*K)	-	
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 ¹⁸	Ω*cm	DIN IEC 60093	
Dielectric constant	10 kHz	2.3		DIN IEC 60250	
<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	0.70	%	DIN EN ISO 62	
Flammability (UL94)	corresponding to	V0		DIN IEC 60695-11-10;	1)

(1) Found in public sources. Individual testing regarding application conditions is mandatory.
(2) Thermal expansion XY/Z axis

(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.

