Data Sheet PTFE virgin				
Parameter	Unit	Testing method	Test specimen	Required values
Mechanical Properties, measured at 23°C on sintered specimens				
Density	g/cm³	DIN 53479		2,17 ± 0,03
Tensile strength	N/mm²	DIN 53455	Specimen thickness 1,0 mm	> 26
Elongation at break	%	DIN 53455	Specimen thickness 1,0 mm	> 250
Ball indentation hardness	N/mm²	DIN 53456	Platelets, 4 mm thick	> 25
Shore-hardness D		DIN 53505	Platelets, 6 mm thick	> 56
Deformation under load (15 N/mm²)	%	Similar to ASTM D 621	Cylinder 10 mm Ø x 10 mm	17
Tensile modulus	N/mm²	DIN 53457		600
Thermal properties				
Thermal conductivity	W/m·K	DIN 52612		0,24
Coefficient of linear expansion[1]) (Parallel to pressing direction)	K^{-1}	DIN 53752	30 -100 °C 30 - 200 °C 30 - 260°C	$12 \cdot 10^{-5}$ $14 \cdot 10^{-5}$ $17 \cdot 10^{-5}$
Coefficient of linear expansion[1]) (crosswise to pressing direction)	K^{-1}	DIN 53752	30 -100 °C 30 - 200 °C 30 - 260°C	$12 \cdot 10^{-5}$ $14 \cdot 10^{-5}$ $17 \cdot 10^{-5}$
Long-term service temperature	°C	Short-term Long-term		Up to 300°C Up to 260°C
Electrical properties, measured at 23°C				
Electrical strength	kV/mm	DIN 53481 VDE 0303 part 2	Film, 100 µm thick	55
Volume resistivity	Ohm·cm	DIN VDE 0303 part 30 IEC93		10^{18}
Surface resistance	Ohm	DIN VDE 0303 part 30 IEC93		10^{17}
Chemical resistance				
PTFE shows universal resistance. Melted or dissolved alkali metals affect PTFE only superficially. Solely elementary fluorine and chloro-trifluoride lead to a reaction at elevated pressure and elevated temperature.				

[1]) measured with dilatometer 2°C/min