

PTFE I

15 % clean milled glass fibres + 5% MoS₂ + 80 % virgin PTFE

Mechanical, Physical and Thermal Properties

properties	condition	standard	unit	unit	unit	unit
colour				grey		grey
density/specific gravity	23 °C	DIN 53479	kg/m ³	2260	g/cm ³	2,26
hardness	23 °C	ISO 868	Shore D	58 ±3	Shore D	58 ±3
ball indentation hardness 23 °C		DIN 53456 H135/30	MPa	27 ±5	psi	3915 ±725
tensile strength	23 °C	ASTM D 4745-79	MPa	≥ 16	psi	≥ 2320
elongation at break	23 °C	ASTM D 4745-79	%	≥ 185	%	≥ 185
compressive strength	23 °C	DIN 53455	MPa	≥8	psi	≥ 1160
thermal conductivity		DIN 52612	$\frac{J}{m \cdot h \cdot K}$	1,1	$\frac{J}{m \cdot h \cdot K}$	1,1
coefficient of thermal expansion	25 °C - 200 °C		K ⁻¹ * 10 ⁻⁵	13	K ⁻¹ * 10 ⁻⁵	13
coefficient of friction *	23 °C			0,13		0,13
minimum service temperature			°C	-200	°F	-328
maximum service temperature			°C	260	°F	500
young's modulus	23 °C	DIN 53457	MPa	1320	psi	191500

* coefficient of friction dry dynamic Steel 16MnCr5 v=0,6m/s; p=0,05 MPa; t=5h

Chemical Properties

Filled PTFE

Resistant to almost all chemicals

Not resistant to halogenides, elemental fluorine, CF₃, molten alkali metals

Foodstuff applications -