

PTFE virgin
Mechanical, Physical and Thermal Properties

properties	condition	standard	unit		unit	
colour				white		white
density/specific gravity	23 °C	DIN 53479	kg/m ³	2150	g/cm ³	2,15
hardness	23 °C	ISO 868	Shore D	55 ±3	Shore D	55 ±3
ball indentation hardness	23 °C	DIN 53456 H 135/30	MPa	23 ±5	psi	3335 ±725
tensile strength	23 °C	ASTM D 4745-79	MPa	≥ 27	psi	≥ 3916
elongation at break	23 °C	ASTM D 4745-79	%	≥ 250	%	≥ 250
compressive strength	23 °C	DIN 53455	MPa	≥ 4	psi	≥ 580
thermal conductivity		DIN 52612	$\frac{J \cdot 10^3}{m \cdot h \cdot K}$	0,8	$\frac{J \cdot 10^3}{m \cdot h \cdot K}$	0,8
coefficient of thermal expansion	25 °C - 200 °C		K ⁻¹ * 10 ⁻⁵	19	K ⁻¹ * 10 ⁻⁵	19
coefficient of friction *	23 °C		μ	0,08	μ	0,08
minimum service temperature			°C	-200	°F	-328
maximum service temperature			°C	260	°F	500
young's modulus	23 °C	DIN 53457	MPa	540	psi	78500

* 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 FDA approval