

PTFE virgin

Mechanical, Physical and Thermal Properties

Properties	Condition	Standard	Unit	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/ H135/30	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	$\frac{J * 10^3}{m * h * K}$	0,8	$\frac{J * 10^3}{m * h * K}$	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

