

PTFE II

40 % bronze + 60 % virgin PTFE

Mechanical, Physical and Thermal Properties

properties	condition	standard	unit	unit	unit
colour				brown	brown
density/specific gravity	23 °C	DIN 53479	kg/m ³	3110	g/cm ³ 3,11
hardness	23 °C	ISO 868	Shore D	60 ±3	Shore D 60 ±3
ball indentation hardness 23 °C		DIN 53456 H135/30	MPa	33 ±5	psi 4790 ±725
tensile strength	23 °C	ASTM D 4745-79	MPa	≥ 22	psi ≥ 3190
elongation at break	23 °C	ASTM D 4745-79	%	≥ 200	% ≥ 200
compressive strength	23 °C	DIN 53455	MPa	≥ 10	psi ≥ 1450
thermal conductivity		DIN 52612	$\frac{J * 10^3}{m * h * K}$	≥ 4,0	$\frac{J * 10^3}{m * h * K}$ ≥ 4,0
coefficient of thermal expansion	25 °C - 200 °C		K ⁻¹ * 10 ⁻⁵	≥8	K ⁻¹ * 10 ⁻⁵ ≥8
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	≥ 1375	psi ≥ 199500

* 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 -