

PTFE GRAPHITE

Mechanical, Physical and Thermal Properties

15 % graphite + 85 % virgin PTFE

properties	condition	standard	unit		unit	
colour				dark grey		dark grey
density/specific gravity	23 °C	DIN 53479	kg/m ³	2130	g/cm ³	2,13
hardness	23 °C	ISO 868	Shore D	60 ±3	Shore D	60 ±3
ball indentation hardness	23 °C	DIN 53456 H135/30	MPa	26 ±5	psi	3770 ±725
tensile strength	23 °C	ASTM D 4745-79	MPa	≥ 14	psi	≥ 2030
elongation at break	23 °C	ASTM D 4745-79	%	≥ 110	%	≥ 110
compressive strength	23 °C	DIN 53455	MPa		psi	
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	≥ 11,2	K ⁻¹ * 10 ⁻⁵	≥ 11,2
coefficient of friction *	23 °C		μ	≥ 0,14	μ	≥ 0,14
minimum service temperature			°C	-200	°F	-328
maximum service temperature			°C	260	°F	500
young's modulus	23 °C	DIN 53457	MPa		psi	

* 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

Detailed information concerning chemical resistance see Chemical Resistance Guide

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