

PTFE virgin 55 Shore D white

Polytetrafluorethylene

PTFE virgin has very good sliding properties, has best chemical resistance and is non-flammable. Due to its low elasticity it is not suitable for high mechanical loads. Note that PTFE virgin has poor thermal conductivity, high expansion coefficient and low loading capacity as bearing material.

Mechanical, physical and thermal properties

Material code: 0800G

Properties	Condition	Standard	Unit	Unit		
Color				white		
Hardness	23°C	ISO 868/3 sec. ISO 863/15 sec.	Shore D	55 ± 3 53 ± 3		
Density	23°C	DIN 53 479	g/cm ³	2,51	kg/m ³	2150
Ball indentation hardness	23°C	DIN 53 456 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		
Compression strength	23°C	DIN 53 455	MPa	≥4	Psi	≥580
Thermal conductivity	23°C	DIN 52 612	$\frac{J \times 10^3}{M \times h \times K}$	0,8		
Coefficient of therm. Expansion	23°C-200°C		K ⁻¹ x 10 ⁻⁵	19		
Coefficient of friction*	23°C		μ	0,08		
Minimum service temperature			°C	-200	°F	-328
Maximum service temperature			°C	260	°F	500
Young's modulus	23°C	DIN 53 457	MPa	540	Psi	78500
FDA CRF 21-177.1550 compliant	yes					
Council Directive 10/2011 EC	yes					
USP Class IV	yes					
*dynamic coefficient of friction, dry, steel, 16MnCr5: v= 0,6 m/s; p=0,05 MPa; t=5h						

Resistant to: almost all chemicals

No resistant to: molten alkali metals, halogenides, elemental fluorine

FDA compliant