

PTFE BRONZE 40% | POLYTETRAFLUOROETHYLENE

Main features

The bronze-loaded PTFE has excellent wear resistance, high compression resistance and high thermal conductivity. It is, however, little resistant to chemical agents.

Applications

Bearings
Valves
Pump components

Application sectors

Pumps and fluid management
Power Plant, Offshore, Oil & Gas
Mechanic
Industrial automation
Electrical and Semiconductor

FDA Compatibility

No

Available colours



PHYSICAL PROPERTIES

REGULATIONS

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PTFE BRONZE 40%

PHYSICAL PROPERTIES			
Density	DIN53479	g/cm ³	3.07
Water absorption (50% at 23° C)	**DIN53495	%	-
Maximum temp. for use in the air for short duration	-	°C	-
Maximum temperature of use in continuous air	-	°C	260
Minimum temperature of use in continuous air	-	°C	-200

MECHANICAL PROPERTIES			
Yield stress/tensile strength (σ_s)	ASTMD 792	N/mm ²	17
Elongation at break (ϵ_s)	ASTMD 4894	%	150
Breaking load (σ_r)	DIN53455	N/mm ²	23-28
Elongation at break (ϵ_r)	ASTMD 4894	%	150
Impact resistance	*DIN53453	kJ/m ²	-
Impact resistance, notched test	*DIN53453	kJ/m ²	-
Rockwell hardness	DIN53465	Scala M	66
Compression test, load 1% deform. nominal	ASTMD 695	N/mm ²	8
Elasticity module	*DIN53457 ⁽⁵⁾	N/mm ²	-

THERMIC PROPERTIES			
Melting temperature	-	°C	-
VICAT softening temperature	DIN53460	°C	-
Deformation temperature under bending load	DIN53461	°C	-
Coefficient of linear thermal expansion (α)	DIN53752	K ⁻¹ X10 ⁻⁴	10
Thermal conductivity at 23°	DIN52612	W/(Kxm)	0.74

ELECTRICAL PROPERTIES			
Volume resistivity	**DIN53482	Ω /cm	10 ¹¹
Surface resistivity	**DIN53482	Ω	10 ¹⁰
Dielectric constant at 10 ³ HZ (on thickness of 1 mm.)	**DIN53483	-	-
Dielectric dissipation factor (tan δ) a 10 ³ HZ	**DIN53483	-	-
Dielectric strength (on thickness of 1 mm.)	**DIN53481	kV/mm	-
Electrical leakage resistivity	112/030TI	-	-

OTHER PROPERTIES			
Possibility of gluing	-	-	No
Absence of physiological risks	FDA	-	No
Dry friction coefficient on steel	DIN53375	-	0,13
Flammability	UL94	-	-
UV stability	-	-	-

* : MEASUREMENTS ON TEST TUBES IN ANHYDROUS STATE

** : MEASUREMENTS ON EQUILIBRIUM TUBES
WITH U.R. 50% AT A TEMPERATURE OF 23° C

(3): ON CYLINDERS Ø 12X30 MM

(5): TRACTION SPEED 1 MM / MIN

(4): TRACTION SPEED 5 MM/MIN

(6): TRACTION SPEED 20 MM/MIN