PTFE+40%Bronze - teflon bronze filled

Other material names PTFE+40%Bronze: Murflor+bronze
Material group: Teflon



Bronze filled PTFE contains a copper/tin alloy providing a better creep resistance than most of the PTFE alloys. It exhibits improved thermal conductivity, with high load bearing capacity and hence is most often used in hydraulic systems. Bronze filled PTFE is both thermally and electrically conductive. The bronze enhances dimensional stability due to improved hardness, compressive strength and resistance to creep. Bronze filled PTFE is not to be used in contact with oxidizing agents.

Typical applications:

- bearings,
- piston rings (hydraulics),
- valve seats and plugs.
- It is also used for support slides of heavy loads subject to several shocks.



The material is used in:

Automobile industry
Mining industry
Engineering industry
Paper industry
Construction machines

Features:

- Chemically inert to all known industrial chemicals;
- Low co-efficient of friction, non-stick & non-toxic;
- Wide temperature range (-260°C to +260 °C);
- Exhibits excellent permeation resistance;
- Excellent dielectric properties;

Material properties table

Specific weight	3.12 g/cm³
Tensile strength	17 N/mm²
Allowable mean pressure deformation 1%	10.30 N/mm²
p.v dry limit	0.28 MPa.m/s
Flexural strength	8 N/mm²
Tensibility	230 %
Flexural modulus	1 375 N/mm²
Tensile modulus	1 400 N/mm²
Notched toughness	>11 kJ/m²
Ball hardness	65 N/mm²
Friction coefficient	0.12

Sliding wear	0.50 um/km
Antistatic material	No
Specific internal resistance	10^(7) Ω
Specific surface resistance	10^(8) Ω.cm
Thermal expansion	10 10^(-5)/K
Permanent use temperature	-200 ; 260 °C
Transient temperature of use	-200 ; 280 °C
Absorbability	0,01 %
Water absorption	0,01 %
Resistance - oils	resistant
Acid resistance	conditionally resistant
Durability - alcali	conditionally resistant
Food contact	No
Special features	• self-lubricating

Engineering plastics are supplied in the form of bars, plates, strips, tubes and sheets. From the semi-finished products the company TechPlasty has regularly in stock, we also supply blanks.

All standard and special materials are designed to meet your specific requirements. Their mechanical, thermal, and electrical properties and chemical resistance satisfy the most demanding requirements and this allows them to work even in the most difficult conditions. If you need advice when choosing the appropriate material for your application, please contact us. We'll gladly advise you. You can utilize the long-term experience of our technical advisors free-of- charge, who can visit you right in your operation and solve your requirements for engineering plastics directly at the site of their usage.

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