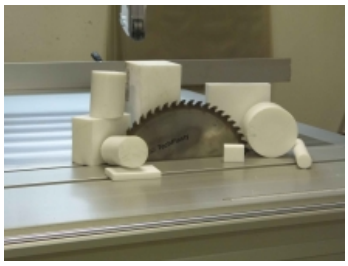
PTFE - teflon

Other material names PTFE: Murflor
Material group: Teflon



PTFE has the lowest coefficient of all materials and is ideal in applications where lubricants are not desirable as PTFE functions without any lubricants. PTFE has the widest working temperature range of all plastics, from -260°C to 260°C. PTFE is excellent for use in cryogenic applications as shows no embrittlement. PTFE has very good sealing properties. PTFE is not flammable unless in 94% oxygen environment. PTFE is an excellent insulating material. PTFE is not ideal in high wear abrasive applications or in high loading applications. Here filled PTFE is used to improve resistance to load and wear.

Color of material:

White

Typical applications:

- Chemical applications, sealing applications
- Insulating materials in demanding electrical applications
- Low friction applications
- Gaskets
- Bearing pads
- Chemical equipment, valve seats, valves in gas cylinders, bellows etc.







The material is used in:

Beverage industry
Food industry
Electrotechnical industry
Automobile industry
Chemical industry
Packaging industry
Dairy industry
Meat processing industry
Paper industry
Glass industry
Production of single-purpose 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 availability: Some sizes are in stock

Material properties table

Specific weight	2.16 g/cm³
Allowable mean pressure deformation 1%	4.00 N/mm²
p.v dry limit	0.04 MPa.m/s
Flexural strength	6 N/mm²
Tensibility	350 %
Flexural modulus	540 N/mm²
Tensile modulus	700 N/mm²
Impact toughness	bez zlomu
Notched toughness	>16 kJ/m²
Ball hardness	55 N/mm²
Friction coefficient	0.06
Sliding wear	21.00 um/km
Abrasive wear	530
Antistatic material	No
Electrical strength	40 kV/mm
Specific internal resistance	10^(18) Ω
Specific surface resistance	10^(17) Ω.cm
Melting point	327 °C
Thermal expansion	15 10^(-5)/K
Thermal conductivity	0.60 W/(K.m)
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	resistant
Durability - alcali	resistant
Food contact	Yes

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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