PTFE+25%Carbon - teflon carbon filled

Other material names PTFE+25%Carbon: Murflor+carbon
Material group: Teflon



Carbon filled PTFE is primarily used in applications where higher thermal or electrical conductivity is required, over and above conventional PTFE. This grade also exhibits improved wear life and has very good compression properties, for loading applications. Carbon filled PTFE has good abrasion resistance, load bearing, wear and frictional properties under sliding conditions, ranging from dry to fully lubricated systems.

Color of material:

Black

Typical applications:

- dynamic applications at high speed, as the thermal conductivity decreases the wear of the material resulting from heat buildup.
- seal rings, piston rings and compressor rings.
- higher load gasketing applications
- carbon is one of the best fillers to use in water applications.

The material is used in:

Beverage industry
Chemical industry
Packaging industry
Engineering industry
Steel industry

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: Production only on request

Material properties table

Specific weight	2.11 g/cm³
Tensile strength	25 N/mm²
Allowable mean pressure deformation 1%	7.80 N/mm²
p.v dry limit	0.13 MPa.m/s
Flexural strength	9 N/mm²
Tensibility	100 %
Flexural modulus	1 275 N/mm²
Tensile modulus	1 300 N/mm²
Notched toughness	>8 kJ/m²
Ball hardness	65 N/mm²
Friction coefficient	0.09
Sliding wear	1.00 um/km

Antistatic material	Yes
Electrical strength	3 kV/mm
Specific internal resistance	10^(3) Ω
Specific surface resistance	10^(3) Ω.cm
Melting point	327 °C
Thermal expansion	11 10^(-5)/K
Thermal conductivity	1.10 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	No
Special features	• self-lubricating - extremely low coefficient of friction

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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