Fluorosint® Enhanced PTFE

Other material names Fluorosint®: REINFORCED POLYTETRAFLUORETHYLENE [PTFE + MICA]
Material group: Teflon

Fluorosint enhanced PTFE's unique properties are the result of a proprietary process in which synthetically manufactured mica is chemically linked to virgin PTFE. This bonding results in properties not normally attainable in reinforced PTFE. Fluorosint grades offer an excellent combination of low frictional properties and dimensional stability.

Color of material:

White

Typical applications:

- Labyrinth Seals and Shrouds
- Transmission and Power Steering Seal Rings

The material is used in:

Food industry
Electrotechnical industry
Chemical industry

Features:

- Chemical resistance parallels PTFE
- Continuous use temperatures to 260°C
- Compared to PTFE
- higher load carrying capability
- 1/9 of the deformation under load
- lower coefficient of thermal expansion

Material availability: Material in stock at the manufacturer

Material properties table

Specific weight	2.30 g/cm³
Yield strength	10 N/mm²
Tensile strength	10 N/mm²
Allowable mean pressure deformation 1%	10.50 N/mm²
Allowable mean pressure deformation 2%	15.00 N/mm²
Allowable mean pressure deformation 5%	20.00 N/mm²
Tensibility	50 %
Flexural modulus	2 200 N/mm²
Tensile modulus	1 450 N/mm²
Impact toughness	30
Notched toughness	>7 kJ/m²
Ball hardness	40 N/mm²
Friction coefficient	0.10
Antistatic material	No
Permittivity	2.70
Electrical strength	8 kV/mm

Specific internal resistance	10^(13) Ω
Specific surface resistance	10^(13) Ω.cm
Melting point	327 °C
Thermal expansion	9 10^(-5)/K
Permanent use temperature	-50 ; 260 °C
Transient temperature of use	-50 ; 280 °C
Absorbability	<0,1 %
Water absorption	1,0 %
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.

TechPlasty, s.r.o.
Kysucká 7/A
010 01 Žilina
Slovakia