

# 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

<b>Specific weight</b>	2.30 g/cm <sup>3</sup>
<b>Yield strength</b>	10 N/mm <sup>2</sup>
<b>Tensile strength</b>	10 N/mm <sup>2</sup>
<b>Allowable mean pressure deformation 1%</b>	10.50 N/mm <sup>2</sup>
<b>Allowable mean pressure deformation 2%</b>	15.00 N/mm <sup>2</sup>
<b>Allowable mean pressure deformation 5%</b>	20.00 N/mm <sup>2</sup>
<b>Tensibility</b>	50 %
<b>Flexural modulus</b>	2 200 N/mm <sup>2</sup>
<b>Tensile modulus</b>	1 450 N/mm <sup>2</sup>
<b>Impact toughness</b>	30
<b>Notched toughness</b>	>7 kJ/m <sup>2</sup>
<b>Ball hardness</b>	40 N/mm <sup>2</sup>
<b>Friction coefficient</b>	0.10
<b>Antistatic material</b>	No
<b>Permittivity</b>	2.70
<b>Electrical strength</b>	8 kV/mm

<b>Specific internal resistance</b>	10 <sup>(13)</sup> Ω
<b>Specific surface resistance</b>	10 <sup>(13)</sup> Ω.cm
<b>Melting point</b>	327 °C
<b>Thermal expansion</b>	9 10 <sup>(-5)</sup> /K
<b>Permanent use temperature</b>	-50 ; 260 °C
<b>Transient temperature of use</b>	-50 ; 280 °C
<b>Absorbability</b>	<0,1 %
<b>Water absorption</b>	1,0 %
<b>Resistance - oils</b>	resistant
<b>Acid resistance</b>	resistant
<b>Durability - alcali</b>	resistant
<b>Food contact</b>	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.**

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