

DATASHEET

FLUOROSINT 207

This material has a food contact compliant composition which, in combination with the good mechanical performance, dimensional stability, sliding and wear properties and inherent outstanding chemical and hydrolysis resistance of Fluorosint, opens numerous application possibilities in food, pharmaceutical and chemical processing industries. Fluorosint 207 lasts far longer than unfilled PTFE in wear applications and has a very low coefficient of friction. It is a preferred material for lower pressure seats and seals where virgin PTFE fails and food contact compliance may be required.

Applications

- Dishwasher Arm Bearing
- Valve Seats

Availability

- Colour – White
- Type – Sheets, Rods & Tubes
- Regularly produced in a wide variety of thicknesses

Typical Properties

General Properties	Method	Unit	Test Result
Physical Properties			
Colour	-	-	White
Density	ISO 1183-1	g/cm ²	2.3
Water Absorption:			
- After 24h immersion in water of 23°C	ISO 62	mg	
- At saturation in water of 23°C	-	%	1 – 2
Thermal Properties			
Melting Temperature (DSC, 10°C/min)	ISO 11357 – 1/-3	°C	327
Glass Transition Temperature (DSC, 10°C/min)	ISO 11357 – 1/-2	°C	
Thermal Conductivity at 23°C	-	W/(K.m)	
Coefficient of Linear Thermal Expansion:			
- Average value between 23 and 100°C	-	W/(K.m)	85x10 ⁻⁶
- Average value between 23 and 150°C	-	W/(K.m)	90x10 ⁻⁶
- Average value above 150°C	-	W/(K.m)	155x10 ⁻⁶
Temperature of Deflection Under Load:			
- Method A: 1.8 MPa	ISO 75-1/-2	°C	100
Max Allowable Service Temperature in Air:			
- Continuously: for 5,000 to 20,000h	-	°C	260
Minimum Service Temperature	-	°C	-50

Flammability:			
- According to UL94 (3/6mm thickness)	-	-	V-0
Mechanical Properties			
Tension Test:			
- Tensile Strength	ISO 527-1/-2	MPa	10
- Tensile Strain at Yield	ISO 527-1/-2	%	4
- Tensile Strain at Break	ISO 527-1/-2	%	>50
- Tensile Modulus of Elasticity	ISO 527-1/-2	MPa	1450
Flexural Test:			
- Flexural Strength	ISO 178	MPa	14
- Flexural Modulus of Elasticity	ISO 178	MPa	
Compression Test:			
- Compressive Stress @ 1/2/5% Nominal Strain	ISO 604	MPa	10.5/15/20
Charpy Impact Strength - Unnotched	ISO 179-1-1eU	kJ/m ²	30
Charpy Impact Strength - Notched	ISO 179-1-1eU	kJ/m ²	7.5
Rockwell Hardness	ISO 2039-2	-	50
Dynamic Coefficient of Friction	ISO 7148-2(15)	-	0.15-0.25
Wear Rate	ISO 7148-2(15)	Um/km	5
Electrical Properties			
Electric Strength	EC 60243-1	kV/mm	8
Volume Resistivity	IEC 60093	Ohm.cm	>10E 13
Surface Resistivity	IEC 60093	Ohm	>10E 13
Relative Permittivity – at 1MHz	IEC 60250	-	2.65
Dielectric Dissipation Factor – at 1 MHz	IEC 60250	-	0.008