

Bakelite® PF 6507

Phenolic
Hexion Inc.

Message:

Product Description
Phenolic moulding compound, inorganically filled, glass fibre reinforced, elastomer modified, galvanizable, heat-resistant, good media resistance, high dimensional stability at raised temperature, high mechanical strength

Application Areas
Cooling pumps, solenoid switch covers, magnetic switches, mechanically and thermally highly stressed parts in automotive construction, electrical motor end shields, housing parts, pulleys, tension return pulleys, cog wheels, impellers, bearing parts

General Information	
Filler / Reinforcement	Glass Fiber Inorganic
Additive	Impact Modifier
Features	Good Dimensional Stability High Heat Resistance High Strength Impact Modified Low Shrinkage
Uses	Automotive Applications Bearings Housings Pulleys Pump Parts Switches
Processing Method	Compression Molding Injection Molding

Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.60	g/cm ³	ISO 1183
Apparent Density	0.72	g/cm ³	ISO 60
Molding Shrinkage ¹	0.20	%	ISO 2577
Water Absorption - 24h/23C	15.0	mg	ISO 62
Post Shrinkage ²	0.15	%	ISO 2577
Compression Molding Molding Pressure	> 15.0	MPa	
Compression Molding Temperature	160 to 190	°C	
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness (H 961/30)	250	MPa	ISO 2039-1

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	10500	MPa	ISO 527-2/1
Tensile Stress	85.0	MPa	ISO 527-2/5
Flexural Modulus	10000	MPa	ISO 178
Flexural Stress ³	135	MPa	ISO 178
Compressive Stress	250	MPa	ISO 604
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	3.5	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	15	kJ/m ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (8.0 MPa, Unannealed)	170	°C	ISO 75-2/C
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+11	ohms	IEC 60093
Volume Resistivity	1.0E+12	ohms·cm	IEC 60093
Electric Strength ⁴ (1.00 mm)	23	kV/mm	IEC 60243-1
Relative Permittivity (100 Hz)	7.00		IEC 60250
Dissipation Factor (100 Hz)	0.10		IEC 60250
Comparative Tracking Index (Solution A)	150	V	IEC 60112
Injection	Nominal Value	Unit	
Rear Temperature	60.0 to 75.0	°C	
Nozzle Temperature	80.0 to 100	°C	
Processing (Melt) Temp	80.0 to 100	°C	
Mold Temperature	160 to 190	°C	
Injection Pressure	> 15.0	MPa	
Back Pressure	0.500 to 2.00	MPa	
NOTE			
1.	Injection		
2.	Injection		
3.	2.0 mm/min		
4.	short term, electrode layout P25mm/P25mm in transformer oil equivalent to IEC 60296		

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