


Bakelite® PF 6501

PF-(GF+X)

Momentive Specialty Chemicals

Product Texts
Product description:

Phenolic moulding compound, inorganically filled, glass fibre reinforced, high dimensional stability at raised temperature, good media resistance, heat-resistant.

Application areas:

Thermally and dynamically highly stressed parts in automotive field, pulleys.

Property Name	Value	Unit	Standard No.
Apparent density (moulding compound)	0.6	g/cm ³	ISO 60
Moulding shrinkage (injection moulding, longitudinal)	0.2	%	ISO 2577
Post shrinkage (injection moulding, 168h/110°C)	0.1	%	ISO 2577
Moulding shrinkage (compression moulding, longitudinal)	0.2	%	ISO 2577
Post shrinkage (compression moulding, 168h/110°C)	0.1	%	ISO 2577
Flexural strength (2mm/min)	180	MPa	ISO 178
Flexural modulus	13000	MPa	ISO 178
Ball indentation hardness (H 961/30)	400	MPa	ISO 2039/P1
Water absorption (24h/23°C)	15	mg	similar to ISO 62

Additional characteristics:

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Preparation of Test Specimens of Thermosetting Moulding Compound

- Compression to ISO 295
- Injection to ISO 10724

Storage capability

2 years (relative humidity of 50-60% and maximum storage temperature of approximately 20°C)

Rheological properties	Value	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	0.2	%	ISO 294-4, 2577
Mechanical properties			
ISO Data			
Charpy impact strength (+23°C)	13	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	4.5	kJ/m ²	ISO 179/1eA
Thermal properties			
ISO Data			
Temp. of deflection under load, 8.00 MPa	170	°C	ISO 75-1/-2
Electrical properties			
ISO Data			
Relative permittivity, 100Hz	6	-	IEC 60250
Dissipation factor, 100Hz	0.1	E-4	IEC 60250
Volume resistivity	1E9	Ohm*m	IEC 60093
Surface resistivity	1E10	Ohm	IEC 60093
Electric strength	33.5	kV/mm	IEC 60243-1
Other properties			
ISO Data			

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Density	1600	kg/m³	ISO 1183
Test specimen production		Value	Unit
ISO Data		Test Standard	
Injection Molding, injection temperature		115	°C
Injection Molding, injection velocity		170	mm/s
Injection Molding, hold pressure		100	MPa
Injection Molding, cure time		25	min
Compression Molding, mold temperature		160	°C
Compression Molding, cure time		1	min
Characteristics			
Processing			
Injection Molding, Transfer Molding			
Other text information			
Injection Molding			
VERARBEITUNG Temperature of material:		105-115	°C
Mould temperature:		160-190	°C
Curing time:		10-20	sec
Further Information:			
Barrel temperature			
- Feed zone:		60-75	°C
- Nozzle zone:		80-100	°C
Cavity moulding pressure: d>		>15	MPa
Back pressure:		0.5-2	MPa
Holding pressure:		60% of injection pressure	
Compression molding			
PROCESSINGMould temperature:		160-190	°C
Curing time:		20-40	sec
Cavity moulding pressure:		>15	MPa