


Bakelite® PF 6680

PF-(GF+GB)

Momentive Specialty Chemicals

Product Texts
Product description:

Phenolic Moulding compound, filled with glass fibre and glass beads, low abrasion, good chemical resistance

Application areas:

Piston elements, guidance elements

Property Name	Value	Unit	Standard No.
Apparent density (moulding compound)	0.71	g/cm ³	ISO 60
Moulding shrinkage (injection moulding, longitudinal)	0.25	%	ISO 2577
Post shrinkage (injection moulding, 168h/110°C)	0.05	%	ISO 2577
Tensile strength (5mm/min)	115	MPa	ISO 527-1/2
Compr. strength (test spec. flat tested)	275	MPa	ISO 604
Flexural strength (2mm/min)	180	MPa	ISO 178
Flexural modulus	14000	MPa	ISO 178
Ball indentation hardness (H 961/30)	450	MPa	ISO 2039/P1
Water absorption (24h/23°C)	9	mg	similar to ISO 62

Additional characteristics:

D, HT, HS

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			
Tensile Modulus	20000	MPa	ISO 527-1/-2
Charpy impact strength (+23°C)	14	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	3.8	kJ/m ²	ISO 179/1eA
Thermal properties			
ISO Data			
Temp. of deflection under load, 8.00 MPa	165	°C	ISO 75-1/-2
Other properties			
ISO Data			
Density	1720	kg/m ³	ISO 1183
Test specimen production			
ISO Data			
Injection Molding, injection temperature	115	°C	ISO 10724
Injection Molding, injection velocity	170	mm/s	ISO 10724
Injection Molding, hold pressure	100	MPa	ISO 10724
Injection Molding, cure time	25	min	ISO 10724

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Compression Molding, mold temperature	160	°C	ISO 295
Compression Molding, cure time	1	min	ISO 295
Characteristics			
Processing			
Injection Molding, Transfer Molding			
Other text information			
Injection Molding			
VERARBEITUNG	Temperature of material:	105-115	°C
	Mould temperature:	160-180	°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			
PROCESSING	Mould temperature:	160-190	°C
	Curing time:	20-40	sec
	Cavity moulding pressure:	>15	MPa