Bakelite® PF 6771

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. Flammability tested: V-0 / 1,5mm (ALL)

Application areas:

Thermally and mechanically highly stressed parts in automotive field, insulating flanges.

Property Name	Value	Unit	Standard No.
Apparent density (moulding compound)	0.65	g/cm³	ISO 60
Moulding shrinkage (injection moulding, longitudinal)	0.2	%	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)	265	MPa	ISO 604
Flexural strength (2mm/min)	215	MPa	ISO 178
Flexural modulus	15500	MPa	ISO 178
Water absorption (24h/23°C)	10	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	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	17000	MPa	ISO 527-1/-2
Charpy impact strength (+23°C)	17.5	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	4.5	kJ/m²	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 8.00 MPa	170	°C	ISO 75-1/-2
Burning behav. at 1.5 mm nom. thickn.	V-0	class	IEC 60695-11-10
Thickness tested	1.5	mm	IEC 60695-11-10
UL recognition	UL	-	-

Electrical properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	6	-	IEC 60250
Dissipation factor, 100Hz	0.1	E-4	IEC 60250
Volume resistivity	1E10	Ohm*m	IEC 60093
Surface resistivity	1E11	Ohm	IEC 60093
Electric strength	34	kV/mm	IEC 60243-1

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Other properties	Value	Unit	Test Standard
ISO Data			
Density	1700	kg/m³	ISO 1183

Test specimen production	Value	Unit	Test Standard
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
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:	160-190	°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

PROCESSING	Mould temperature:	160-190	°C
	Curing time:	20-40	sec
	Cavity moulding pressure:	>15	MPa