


Bakelite® PF 6507

PF-(CF+X)

Bakelite Synthetics

Product Texts
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:

Thermally and mechanically highly stressed parts in automotive field, solenoid switch caps, electrical motor end shields.

Property Name	Value	Unit	Standard No.
Apparent density (moulding compound)	0.7	g/cm³	ISO 60
Moulding shrinkage (injection moulding, longitudinal)	0.2	%	ISO 2577
Post shrinkage (injection moulding, 168h/110°C)	0.1	%	ISO 2577
Tensile strength (5mm/min)	85	MPa	ISO 527-1/2
Compr. strength (test spec. flat tested)	180	MPa	ISO 604
Flexural strength (2mm/min)	135	MPa	ISO 178
Flexural modulus	10000	MPa	ISO 178
Ball indentation hardness (H 961/30)	250	MPa	ISO 2039/P1
Water absorption (24h/23°C)	15	mg	similar to ISO 62

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	11000	MPa	ISO 527
Charpy impact strength, +23°C	15	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	3.5	kJ/m²	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	6.5	-	IEC 62631-2-1
Dissipation factor, 100Hz	0.1	E-4	IEC 62631-2-1
Volume resistivity	1E10	Ohm*m	IEC 62631-3-1
Surface resistivity	1E11	Ohm	IEC 62631-3-2
Electric strength	22.5	kV/mm	IEC 60243-1
Comparative tracking index	150	-	IEC 60112

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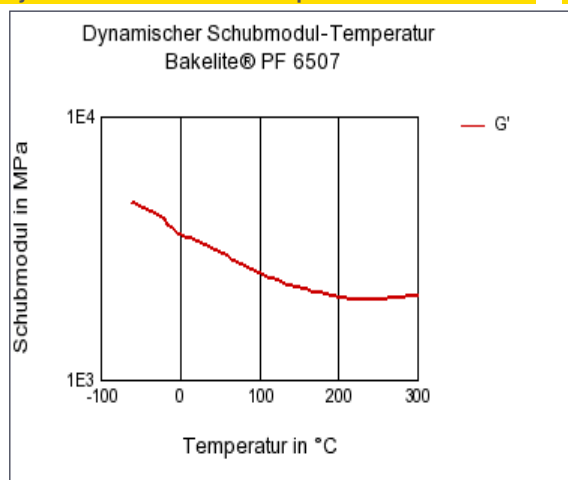
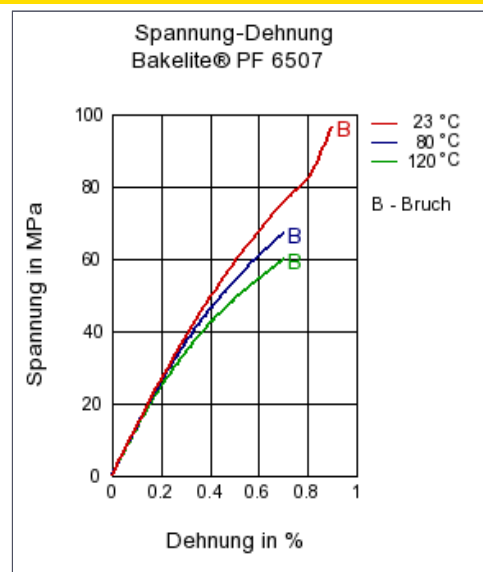
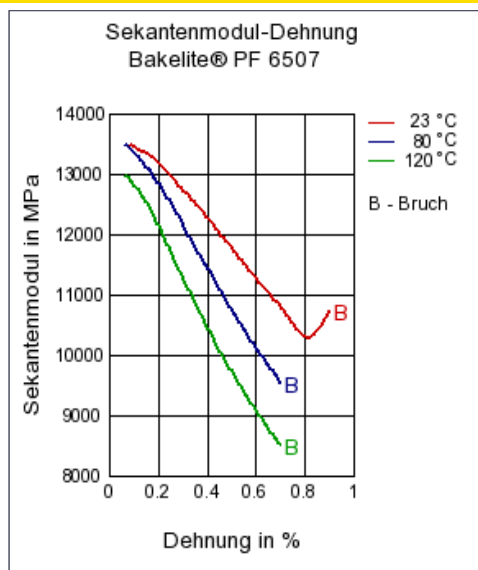
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Other properties**ISO Data**

Value	Unit	Test Standard
Density	1600	kg/m ³
		ISO 1183

Test specimen production**ISO Data**

Value	Unit	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

Diagrams**Dynamic Shear modulus-temperature****Stress-strain****Secant modulus-strain****Characteristics**

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Processing

Injection Molding, Transfer Molding

Other text information**Injection Molding**

VERARBEITUNG

Temperature of material:	80 - 100	°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:	>15	MPa
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Back pressure:	0.5-2	MPa
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Holding pressure:	60% of injection pressure	
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Compression molding

PROCESSING

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