

## TECHNICAL DATA SHEET

# Bakelite® PF 6680

Bakelite Synthetics  
PF-(GF+GB)

## Processing

Injection molding, Transfer molding

## Product Text

### Product Information

#### Product description:

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

#### Application areas:

Thermally and mechanically highly stressed parts in automotive field, pistons, guidance elements, valve blocks.

Property Name	Value	Unit	Standard No.
Apparent density (moulding compound)	0.78	g/cm <sup>3</sup>	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)	195	MPa	ISO 178
Flexural modulus	14500	MPa	ISO 178
Ball indentation hardness (H 961/30)	450	MPa	ISO 2039/P1

# Bakelite® PF 6680

Bakelite Synthetics

Water absorption (24h/23°C)	10	mg	similar to ISO 62
-----------------------------	----	----	-------------------

Additional characteristics: low shrinkage/good dimensional stability, resistant to high temperatures, high mechanical strength

## 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)

Processing/Physical Characteristics	Value	Unit	Standard
Molding shrinkage, parallel	0.25	%	ISO 294-4, 2577
Mechanical Properties	Value	Unit	Standard
Tensile modulus	20000	MPa	ISO 527
Poisson's ratio	0.35		ISO 527
Charpy impact strength, +23°C	14.5	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, +23°C	3	kJ/m <sup>2</sup>	ISO 179/1eA
Thermal Properties	Value	Unit	Standard
Temp. of deflection under load, 8.00 MPa	170	°C	ISO 75-1/-2
Other Properties	Value	Unit	Standard
Density	1710	kg/m <sup>3</sup>	ISO 1183
Test Specimen Production	Value	Unit	Standard
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

## Processing Information

### Injection molding

VERARBEITUNG

Temperature of material: 80 - 100 °C

# Bakelite® PF 6680

Bakelite Synthetics

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
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