

Ultradur® B 4300 G6 HR

PBT-GF30

BASF

Injection-moulding grade with 30% glass-fibres; for rigid and dimensionally stable technical parts with increased requirements on hydrolysis resistance. For example automotive connectors and housings for electronic units under the hood.

Abbreviated designation according to ISO 1043: PBT-GF30

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	5.5	cm ³ /10min	ISO 1133
Temperature	250	°C	-
Load	2.16	kg	-
Molding shrinkage, parallel	0.5	%	ISO 294-4, 2577
Molding shrinkage, normal	1.3	%	ISO 294-4, 2577

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	8700	MPa	ISO 527
Stress at Break	130	MPa	ISO 527
Strain at Break	3.3	%	ISO 527
Impact Strength (Charpy), +23°C	70	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy), -30°C	75	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	12	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	8.75	kJ/m ²	ISO 179/1eA

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Melting Temperature (10°C/min)	223	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	205	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	220	°C	ISO 75-1/-2
Coeff. of Linear Therm. Expansion, parallel	20	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	150	E-6/K	ISO 11359-1/-2

Electrical Properties	Value	Unit	Test Standard
ISO Data			
Electric Strength	37	kV/mm	IEC 60243-1
Comparative tracking index	400	-	IEC 60112

Other Properties	Value	Unit	Test Standard
ISO Data			
Water Absorption	0.4	%	Sim. to ISO 62
Humidity absorption	0.2	%	Sim. to ISO 62
Density	1510	kg/m ³	ISO 1183

Material Specific Properties	Value	Unit	Test Standard
ISO Data			
Viscosity number	108	cm ³ /g	ISO 307, 1157, 1628

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80 - 120	°C	-
Pre-drying - Time	4	h	-
Processing humidity	≤0.04	%	-
Melt temperature	250 - 275	°C	-
Mold temperature	60 - 100	°C	-

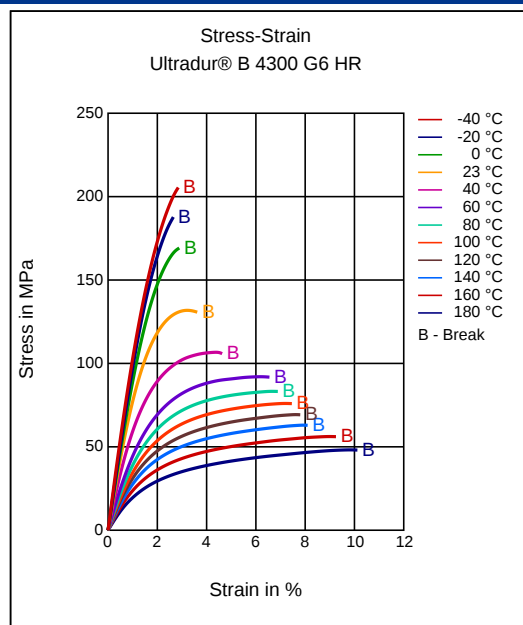
Ultradur® B 4300 G6 HR

PBT-GF30

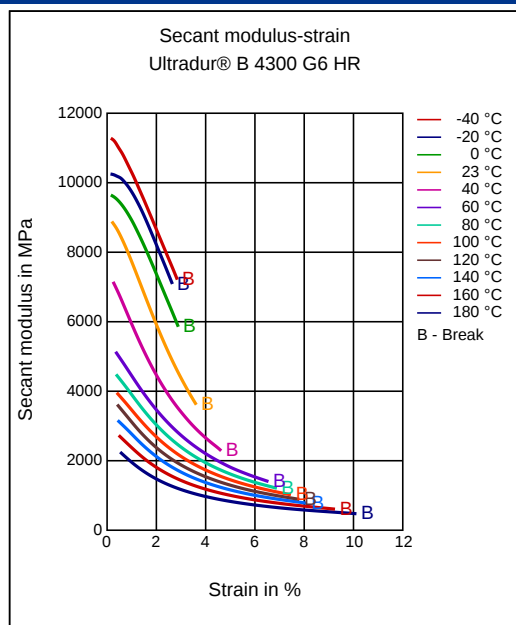
BASF

Diagrams

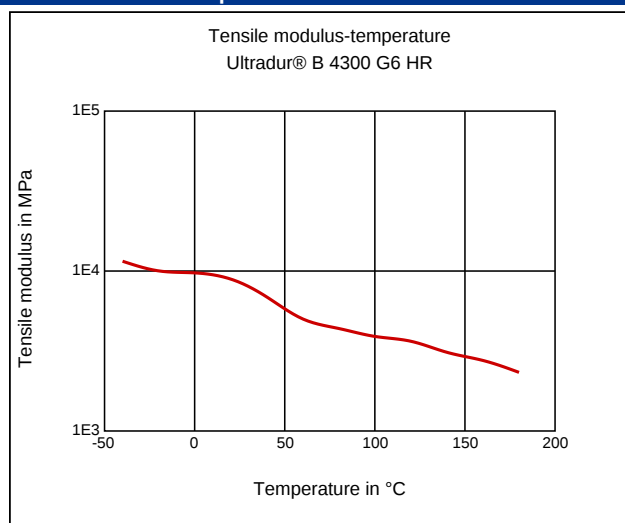
Stress-strain



Secant modulus-strain



Tensile Modulus-Temperature



Characteristics

Processing

Injection Molding

Delivery form

Pellets

Injection Molding

PREPROCESSING

Pre/Post-processing, max. allowed water content: .04 %

Pre/Post-processing, Pre-drying, Temperature: 80 - 120 °C

Pre/Post-processing, Pre-drying, Time: 4 h

PROCESSING

injection molding, Melt temperature, range: 250 - 275 °C

Ultradur® B 4300 G6 HR
PBT-GF30

BASF

injection molding, Melt temperature, recommended: 260 °C
injection molding, Mold temperature, range: 60 - 100 °C
injection molding, Mold temperature, recommended: 80 °C

Chemical Media Resistance

Acids

- ✓ Acetic Acid (5% by mass) (23°C)