Ultradur® B 4030 G6

PBT-GF30 BASF

Impact-modified injection-molding grade with 30% glass fibers for technical parts;rigid, tough and dimensionally stable; for example in housings and connectors in the engine compartment.

Abbreviated designation according to ISO 1043: PBT-GF30

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	2.2	cm³/10min	ISO 1133
Temperature	250	°C	-
Load	2.16	kg	-
Molding shrinkage, parallel	0.4	%	ISO 294-4, 2577
Molding shrinkage, normal	1.1	%	ISO 294-4, 2577

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	9200	MPa	ISO 527
Stress at Break	125	MPa	ISO 527
Strain at Break	3.6	%	ISO 527
Impact Strength (Charpy), +23°C	80	kJ/m²	ISO 179/1eU
Impact Strength (Charpy), -30°C	83	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	16	kJ/m²	ISO 179/1eA
Ball Indentation Hardness	190	MPa	ISO 2039-1

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	25	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	HB	class	UL 94
Thickness tested	1.5	mm	-
Burning Behav. at thickness h	HB	class	UL 94
Thickness tested	0.8	mm	-

Electrical Properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	3.9	-	IEC 62631-2-1
Relative permittivity, 1MHz	3.7	-	IEC 62631-2-1
Dissipation Factor, 100Hz	27	E-4	IEC 62631-2-1
Dissipation Factor, 1MHz	193	E-4	IEC 62631-2-1
Volume Resistivity	>1E13	Ohm*m	IEC 62631-3-1
Surface Resistivity	>1E15	Ohm	IEC 62631-3-2
Electric Strength	39	kV/mm	IEC 60243-1
Comparative tracking index	375	-	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	1480	kg/m³	ISO 1183

Material Specific Properties	Value	Unit	Test Standard
ISO Data			
Viscosity number	105	cm³/g	ISO 307, 1157, 1628

Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Ejection temperature	170	°C	-

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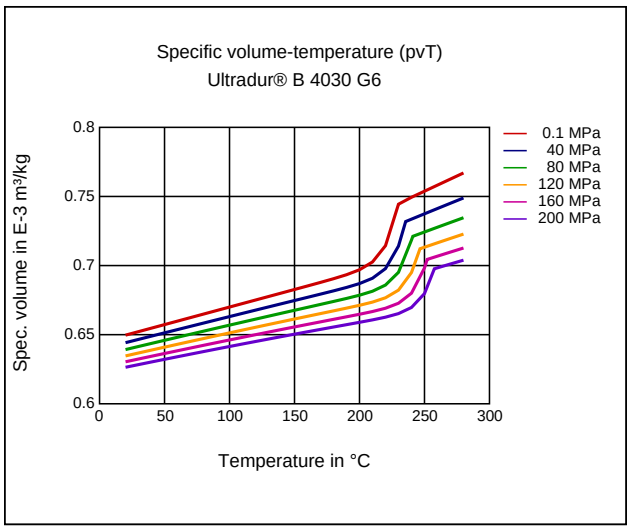
Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	250	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294
Injection Molding, injection velocity	200	mm/s	ISO 294

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	-

Diagrams

Specific volume-temperature (pvT)



Characteristics

Processing
Injection Molding

Delivery form
Pellets, Black

Additives
Lubricants

Special Characteristics
Impact modified, Light stabilized or stable to light, UV stablized, Heat aging stabilized

Chemical Resistance
Hydrolysis

Applications
Automotive

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

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Chemical Media Resistance

Acids

✔ Acetic Acid (5% by mass) (23 °C)