

Durethan® BG30XH3.0 000000
PA6-(GF+GB)30

Envalior

Injection Molding, 30% Glass Fiber/Glass Beads, Heat Stabilized, Low Warpage

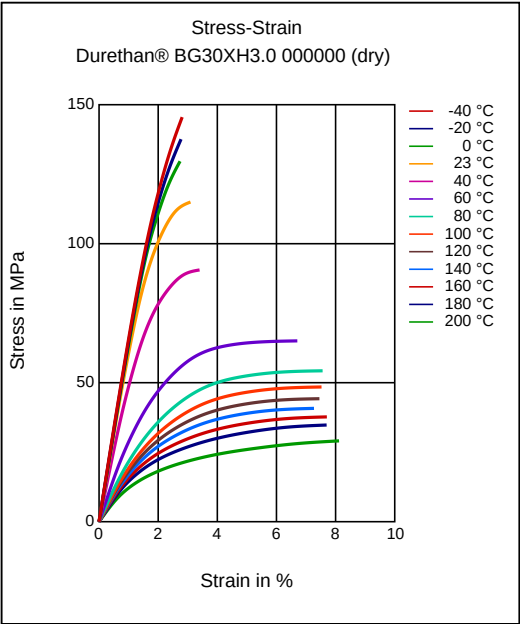
ISO 1043 PA6-(GF+GB)30

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	0.5 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.8 / *	%	ISO 294-4, 2577
Mechanical Properties			
Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	6400 / 3100	MPa	ISO 527
Stress at Break	120 / 65	MPa	ISO 527
Strain at Break	4 / 10	%	ISO 527
Tensile Creep Modulus, 1h	* / 2400	MPa	ISO 899-1
Tensile Creep Modulus, 1000h	* / 2000	MPa	ISO 899-1
Impact Strength (Charpy), +23°C	45 / 75	kJ/m²	ISO 179/1eU
Impact Strength (Charpy), -30°C	40 / 45	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	- / 10	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	- / 10	kJ/m²	ISO 179/1eA
Puncture - maximum force, +23°C	700 / 1540	N	ISO 6603-2
Puncture - maximum force, -30°C	630 / 780	N	ISO 6603-2
Puncture energy, +23°C	2.2 / 2.8	J	ISO 6603-2
Puncture energy, -30°C	1.6 / 2	J	ISO 6603-2
Thermal Properties			
Thermal Properties	dry / cond	Unit	Test Standard
ISO Data			
Melting Temperature (10°C/min)	222 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	190 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	210 / *	°C	ISO 75-1/-2
Coeff. of Linear Therm. Expansion, parallel	30 / *	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	90 / *	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	HB / *	class	UL 94
Thickness tested	1.5 / *	mm	-
Electrical Properties			
Electrical Properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	4.5 / -	-	IEC 62631-2-1
Relative permittivity, 1MHz	4 / -	-	IEC 62631-2-1
Dissipation Factor, 100Hz	265 / -	E-4	IEC 62631-2-1
Dissipation Factor, 1MHz	220 / -	E-4	IEC 62631-2-1
Volume Resistivity	1E13 / -	Ohm*m	IEC 62631-3-1
Comparative tracking index	375 / -	-	IEC 60112
Other Properties			
Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water Absorption	7 / *	%	Sim. to ISO 62
Humidity absorption	2.2 / *	%	Sim. to ISO 62
Density	1350 / -	kg/m³	ISO 1183
Material Specific Properties			
Material Specific Properties	dry / cond	Unit	Test Standard
ISO Data			
Viscosity number	140 / *	cm³/g	ISO 307, 1157, 1628
Test specimen production			
Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	280	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294

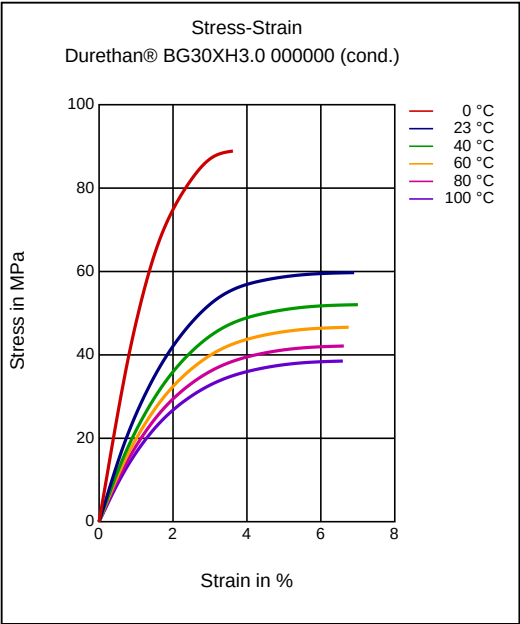
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 6	h	-
Processing humidity	≤0.12	%	-
Melt temperature	270 - 290	°C	-
Mold temperature	80 - 120	°C	-

Diagrams

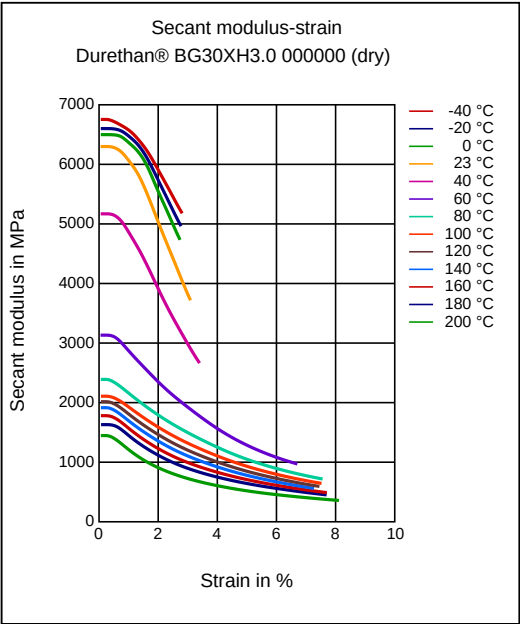
Stress-strain



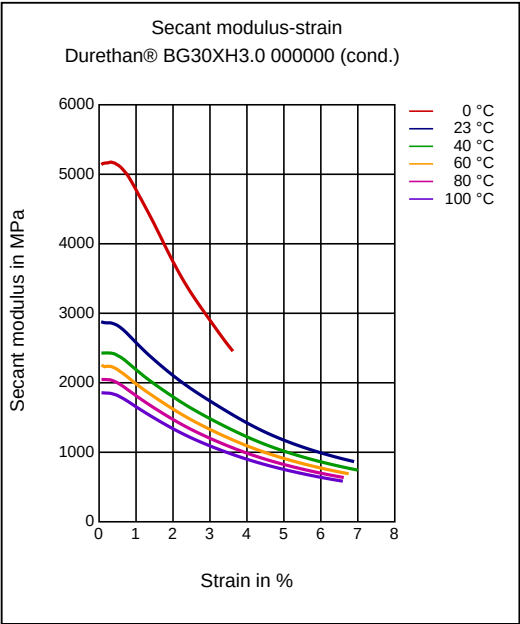
Stress-strain



Secant modulus-strain



Secant modulus-strain



Characteristics

Processing

Injection Molding

Special Characteristics

Heat aging stabilized

Delivery form

Pellets

Features

Low Warpage

Additives

Release agent

Injection Molding

PREPROCESSING

Residual moisture content: 0.03 - 0.12%

Drying temperature dry air dryer: 80 °C

Drying time dry air dryer 2 - 6 h

PROCESSING

Melt temperature (Tmin - Tmax): 270 - 290 °C

Mold temperature: 80 - 120 °C

Disclaimer

Liability Exclusion

These guide values are measured and provided by the product manufacturer and have been determined on standardised test specimens and can be affected by pigmentation, mould design and processing conditions. M-Base has taken the guide values from the producer's original Technical Data Sheet. **ALBIS AND M-BASE ARE THEREFORE NOT RESPONSIBLE FOR THE ACCURACY OF THE GUIDE VALUES AND CANNOT GIVE ANY WARRANTY WITH REGARD TO THEIR CORRECTNESS.**

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