

Durethan BG30X 000000

PA6-(GF+GB)30

LANXESS Deutschland GmbH

PA 6, 30 % glass fibers/glass spheres, injection molding, low tendency to warp

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	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	6300 / 3100	MPa	ISO 527
Stress at break	125 / 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
Charpy impact strength (+23°C)	45 / 75	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	40 / 45	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	- / 10	kJ/m ²	ISO 179/1eA
Puncture - maximum force, +23°C	700 / -	N	ISO 6603-2
Puncture - maximum force, -30°C	690 / -	N	ISO 6603-2
Puncture energy, +23°C	2 / -	J	ISO 6603-2
Puncture energy, -30°C	1.7 / -	J	ISO 6603-2

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	-
Burning behav. at thickness h	HB / *	class	UL 94
Thickness tested	0.8 / *	mm	-
Oxygen index	23 / *	%	ISO 4589-1/-2

Electrical Properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	4.5 / 16	-	IEC 62631-2-1
Relative permittivity, 1MHz	4 / 4.8	-	IEC 62631-2-1
Dissipation factor, 100Hz	130 / 3100	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	180 / 1000	E-4	IEC 62631-2-1
Volume resistivity	1E13 / 1E9	Ohm*m	IEC 62631-3-1
Surface resistivity	* / 1E12	Ohm	IEC 62631-3-2
Electric strength	36 / 30	kV/mm	IEC 60243-1
Comparative tracking index	400 / -	-	IEC 60112

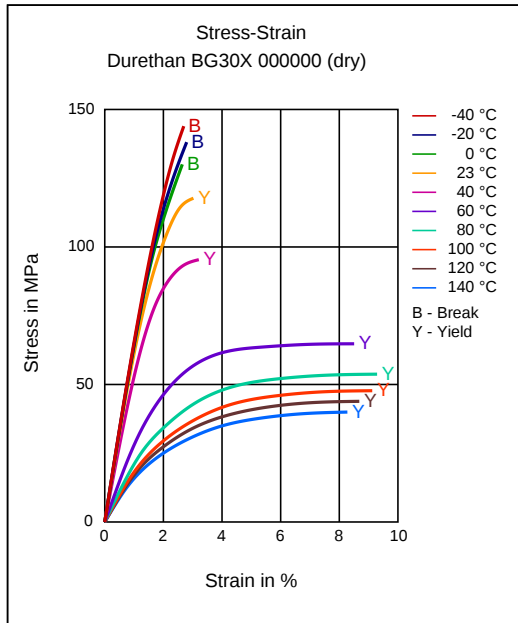
Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water absorption	7 / *	%	Sim. to ISO 62
Humidity absorption	2.2 / *	%	Sim. to ISO 62
Density	1350 / -	kg/m ³	ISO 1183

Material Specific Properties	dry / cond	Unit	Test Standard
ISO Data			
Viscosity number	140 / *	cm ³ /g	ISO 307, 1157, 1628

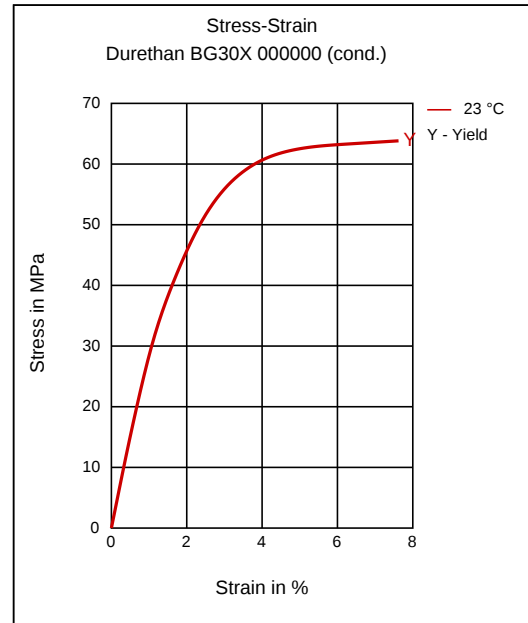
Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	280	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294

Diagrams

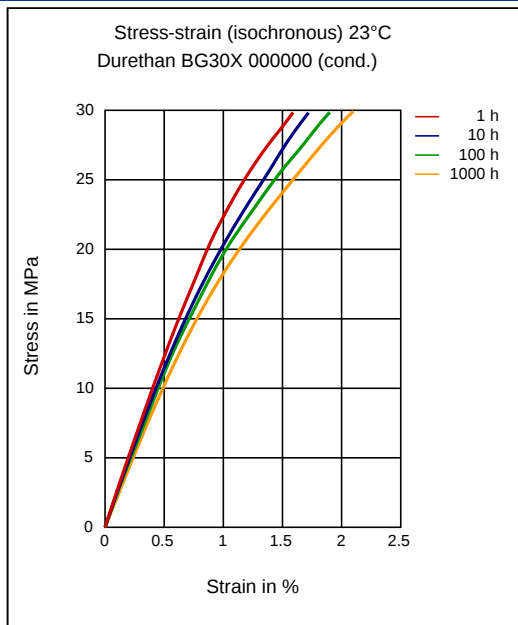
Stress-strain



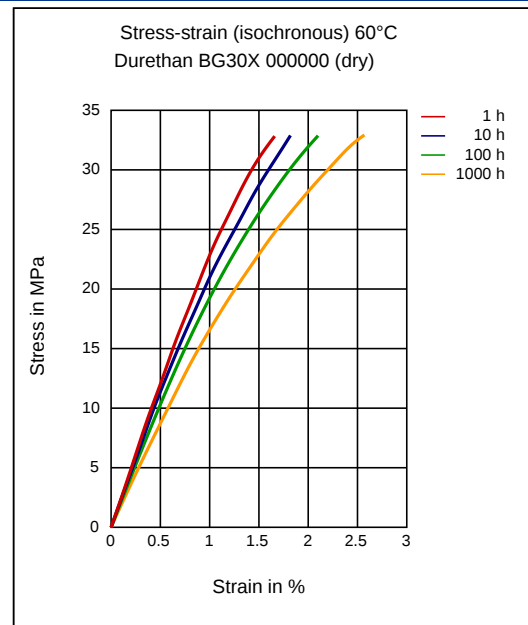
Stress-strain



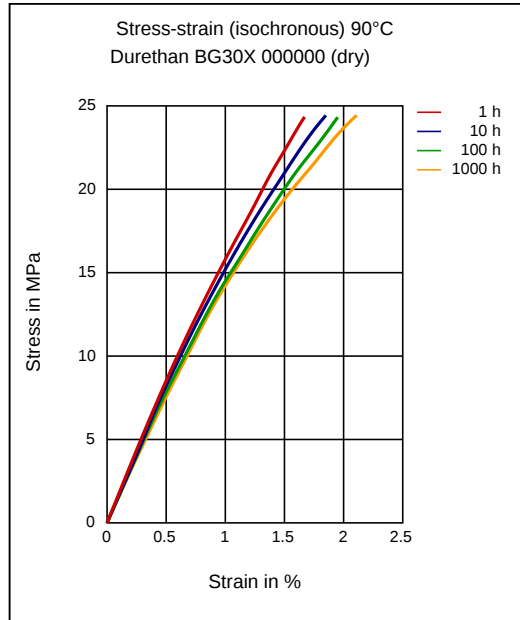
Stress-strain (isochronous) 23 °C



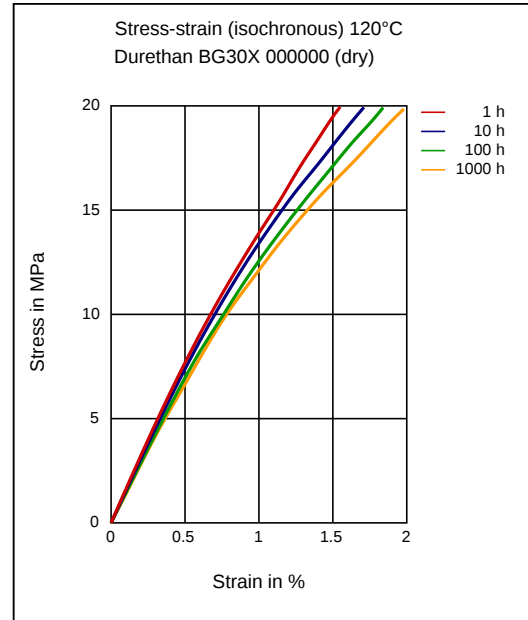
Stress-strain (isochronous) 60 °C



Stress-strain (isochronous) 90 °C



Stress-strain (isochronous) 120 °C



Characteristics

Processing

Injection Molding

Delivery form

Pellets

Features

Low Warpage

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

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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