

Durethan® BKV30XTS3 000000

PA6-GF30

Envalior

Injection Molding, 30% Glass Reinforced, Heat Stabilized

ISO 1043 PA6-GF30

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	0.2 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.7 / *	%	ISO 294-4, 2577

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	10100 / 5500	MPa	ISO 527
Stress at Break	185 / 80	MPa	ISO 527
Strain at Break	3.5 / 5	%	ISO 527
Impact Strength (Charpy), +23°C	80 / 90	kJ/m²	ISO 179/1eU
Impact Strength (Charpy), -30°C	60 / 60	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	11 / 19	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	- / 10	kJ/m²	ISO 179/1eA
Flexural Modulus (23°C)	9300 / 5500	MPa	ISO 178
Notched Impact Strength (Izod), 23°C	10 / 15	kJ/m²	ISO 180/1A
Notched Impact Strength (Izod)	10 / 10	kJ/m²	ISO 180/1A
Impact Strength (Izod), 23°C	75 / 70	kJ/m²	ISO 180/1U

Thermal Properties	dry / cond	Unit	Test Standard
ISO Data			
Melting Temperature (10°C/min)	221 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	200 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	215 / *	°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	110 / *	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	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	3.65 / 9.78	-	IEC 62631-2-1
Relative permittivity, 1MHz	4.66 / 4.08	-	IEC 62631-2-1
Dissipation Factor, 100Hz	0.03 / 0.12	E-4	IEC 62631-2-1
Dissipation Factor, 1MHz	0.03 / 0.09	E-4	IEC 62631-2-1
Volume Resistivity	3.88E12 / 9.6E12	Ohm*m	IEC 62631-3-1
Surface Resistivity	* / >1E15	Ohm	IEC 62631-3-2
Electric Strength	32.9 / 27.6	kV/mm	IEC 60243-1
Comparative tracking index	500 / -	-	IEC 60112

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Density	1360 / -	kg/m³	ISO 1183
Bulk density	700	kg/m³	-

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

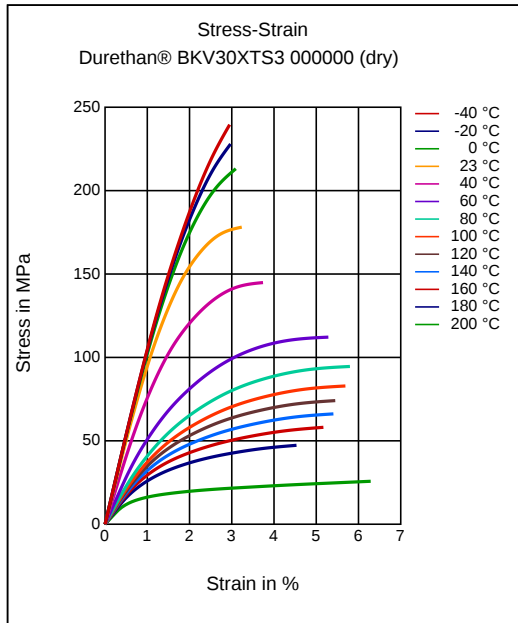
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 6	h	-
Processing humidity	≤0.12	%	-
Melt temperature	270 - 290	°C	-
Mold temperature	80 - 100	°C	-

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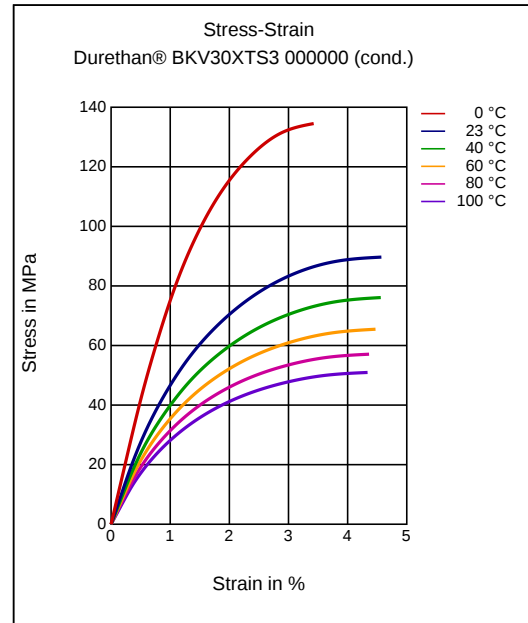
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Diagrams

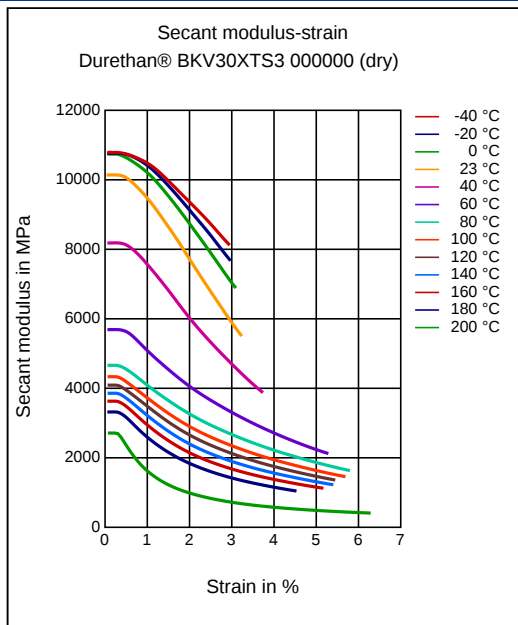
Stress-strain



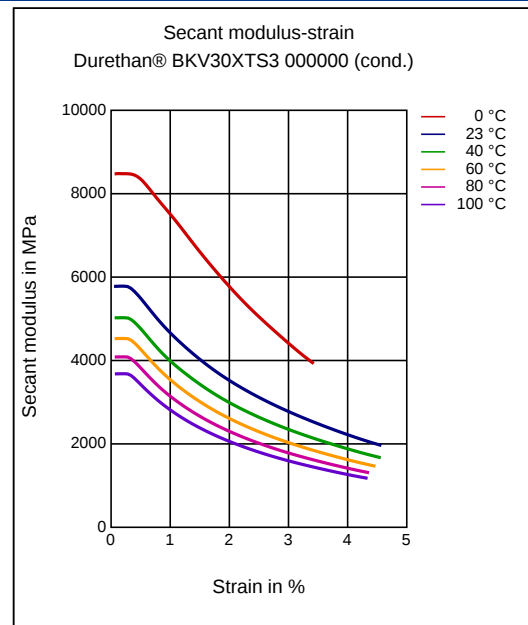
Stress-strain



Secant modulus-strain



Secant modulus-strain



Characteristics

Processing

Injection Molding

Delivery form

Pellets

Injection Molding

PREPROCESSING

Special Characteristics

Heat aging stabilized

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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
admissible residence time at Tmax <5 min
Mold temperature: 80 - 100 °C