

Durethan® BTC965FM30 000000
PA6-MX68

Envalior

Injection Molding, 68% Mineral Reinforced, Flame Retardant (halogen free), Heat Stabilized, Thermal conductive material

ISO 1043 PA6-MX68 FR(61)

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	0.6 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.5 / *	%	ISO 294-4, 2577

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	13100 / 6700	MPa	ISO 527
Stress at Break	75 / 45	MPa	ISO 527
Strain at Break	0.7 / 1.2	%	ISO 527
Impact Strength (Charpy), +23°C	9 / 9	kJ/m ²	ISO 179/1eU

Thermal Properties	dry / cond	Unit	Test Standard
ISO Data			
Melting Temperature (10°C/min)	220 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	160 / *	°C	ISO 75-1/-2
Coeff. of Linear Therm. Expansion, parallel	40 / *	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	50 / *	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	V-0 / *	class	UL 94
Burning Behav. 5V at Thickness h	5VA / *	class	IEC 60695-11-20
Thickness tested	1.5 / *	mm	-
Oxygen index	100 / *	%	ISO 4589-1/-2

Electrical Properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	4.8 / -	-	IEC 62631-2-1
Relative permittivity, 1MHz	4.4 / -	-	IEC 62631-2-1
Dissipation Factor, 100Hz	170 / -	E-4	IEC 62631-2-1
Dissipation Factor, 1MHz	140 / -	E-4	IEC 62631-2-1
Volume Resistivity	>1E13 / -	Ohm*m	IEC 62631-3-1
Electric Strength	34 / -	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	-	IEC 60112

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water Absorption	3.2 / *	%	Sim. to ISO 62
Humidity absorption	1 / *	%	Sim. to ISO 62
Density	1730 / -	kg/m ³	ISO 1183

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

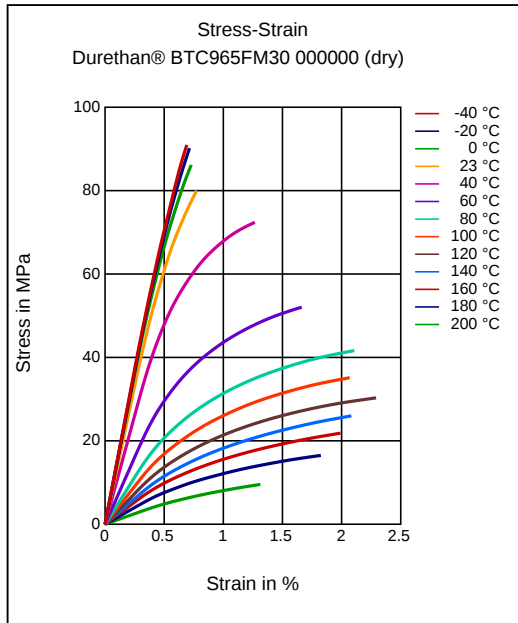
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 6	h	-
Processing humidity	≤0.12	%	-
Melt temperature	260 - 290	°C	-
Mold temperature	80 - 100	°C	-

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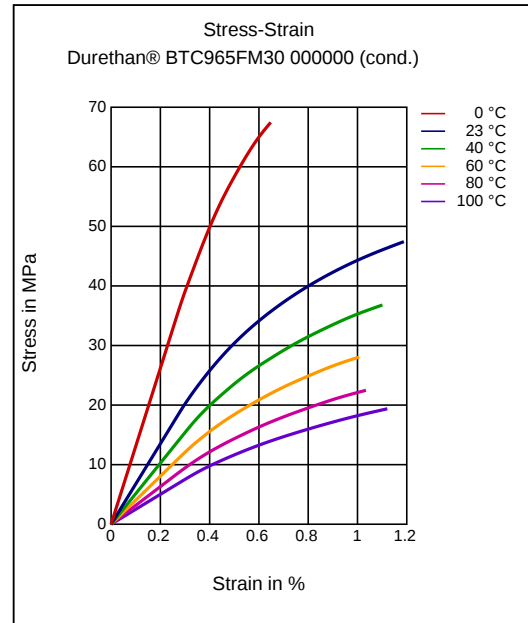
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Diagrams

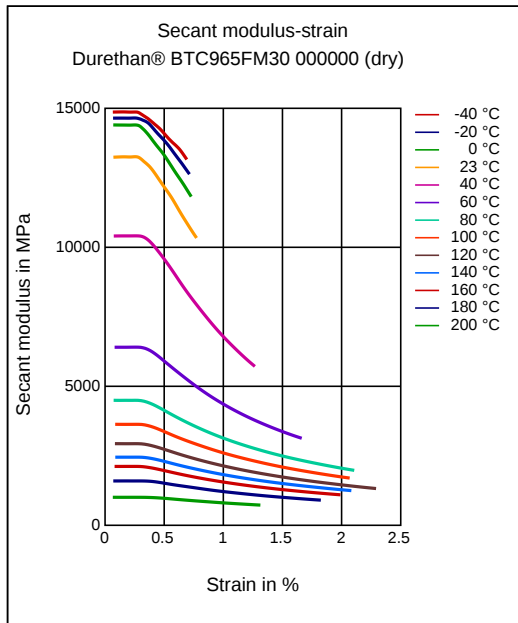
Stress-strain



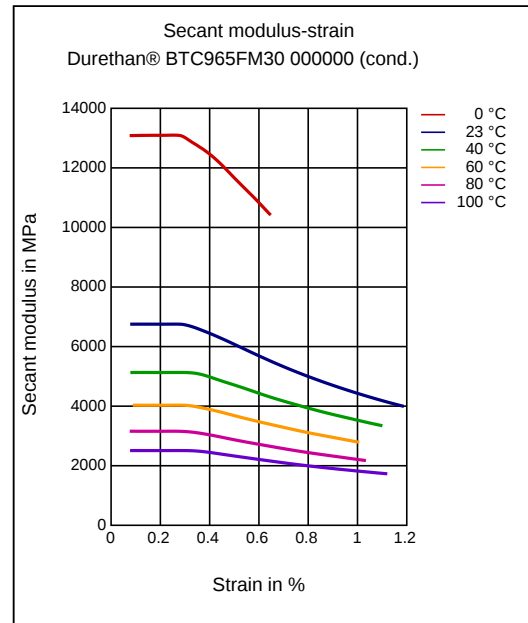
Stress-strain



Secant modulus-strain



Secant modulus-strain



Characteristics

Processing

Injection Molding

Delivery form

Pellets

Injection Molding

PREPROCESSING

Special Characteristics

Flame retardant, Halogen-free, Heat aging stabilized

Features

Thermally Conductivity

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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): 260 - 290 °C

Mold temperature: 80 - 100 °C
