

Durethan® BTC77ZH3.0EF 900117
PA6-MX77

Envalior

Injection Molding, 77% Mineral Reinforced, Heat Stabilized, Thermal conductive material

ISO 1043 PA6-MX77

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	0.7 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.6 / *	%	ISO 294-4, 2577

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	13600 / 5000	MPa	ISO 527
Stress at Break	95 / 60	MPa	ISO 527
Strain at Break	2.8 / 5	%	ISO 527
Impact Strength (Charpy), +23°C	35 / 50	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy), -30°C	20 / 20	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	- / 10	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	- / 10	kJ/m ²	ISO 179/1eA

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)	142 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	191 / *	°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	40 / *	E-6/K	ISO 11359-1/-2

Electrical Properties	dry / cond	Unit	Test Standard
ISO Data			
Volume Resistivity	>1E13 / -	Ohm*m	IEC 62631-3-1
Electric Strength	31 / -	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	-	IEC 60112

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Density	2510 / -	kg/m ³	ISO 1183

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	290	°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	-
Melt temperature	280 - 300	°C	-
Mold temperature	80 - 120	°C	-

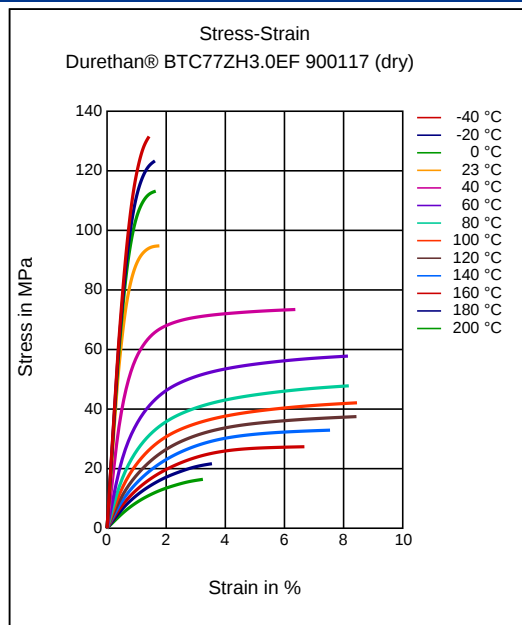
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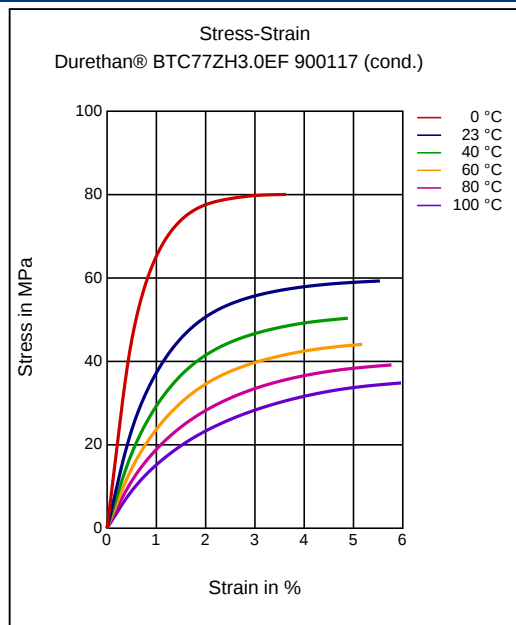
Envalior

Diagrams

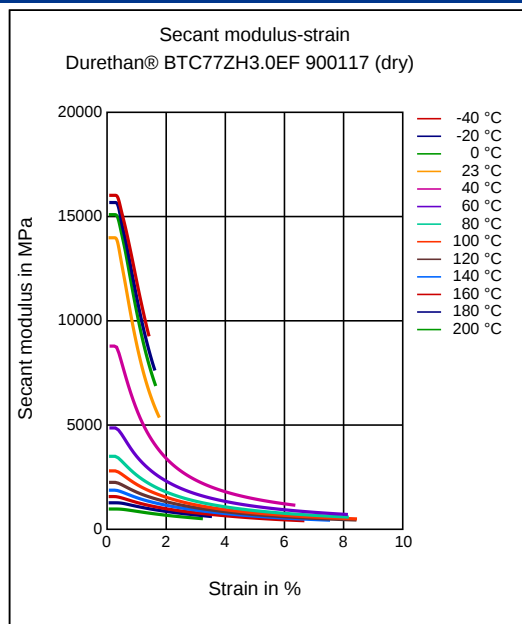
Stress-strain



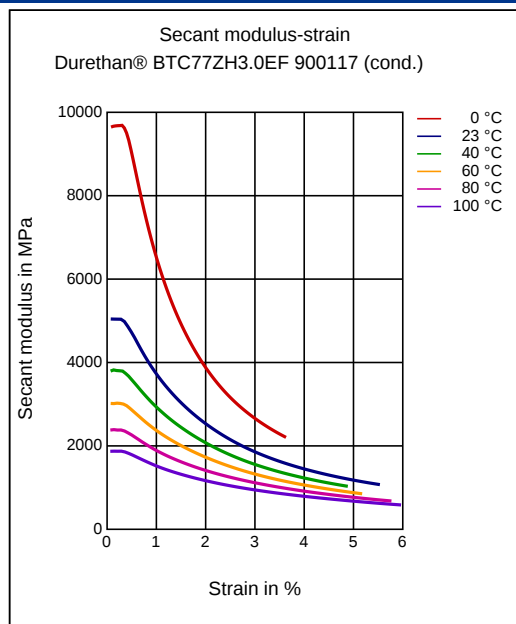
Stress-strain



Secant modulus-strain



Secant modulus-strain



Characteristics

Processing

Injection Molding

Delivery form

Pellets

Injection Molding

PREPROCESSING

Special Characteristics

Heat aging stabilized

Features

Thermally Conductivity

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Drying temperature dry air dryer: 80 °C

Drying time dry air dryer 2 - 6 h

PROCESSING

Melt temperature (Tmin - Tmax): 280 - 300 °C

Mold temperature: 80 - 120 °C
