

Durethan® BG60XXF 900116
PA6-(GF+GB)40

Envalior

Injection Molding, 60% Glass Fiber/Glass Beads, Heat Stabilized, Improved flow, Low Warpage

ISO 1043 PA6-(GF+GB)60

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	0.3 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.4 / *	%	ISO 294-4, 2577

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	19000 / 12300	MPa	ISO 527
Stress at Break	210 / 135	MPa	ISO 527
Strain at Break	2.2 / 3.3	%	ISO 527
Impact Strength (Charpy), +23°C	85 / 75	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy), -30°C	75 / 70	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	15 / 20	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	15 / 15	kJ/m ²	ISO 179/1eA

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)	210 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	218 / *	°C	ISO 75-1/-2
Coeff. of Linear Therm. Expansion, parallel	11 / *	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	85 / *	E-6/K	ISO 11359-1/-2

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Density	1680 / -	kg/m ³	ISO 1183

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	270	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294

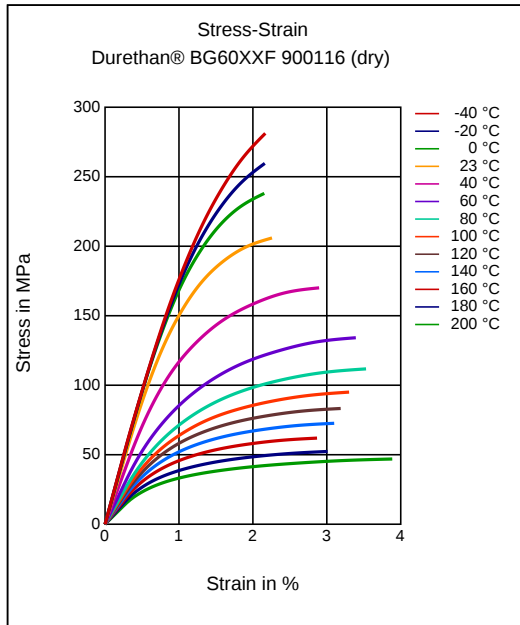
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 6	h	-
Processing humidity	≤0.15	%	-
Melt temperature	270 - 290	°C	-
Mold temperature	80 - 120	°C	-

Durethan® BG60XXF 900116
PA6-(GF+GB)40

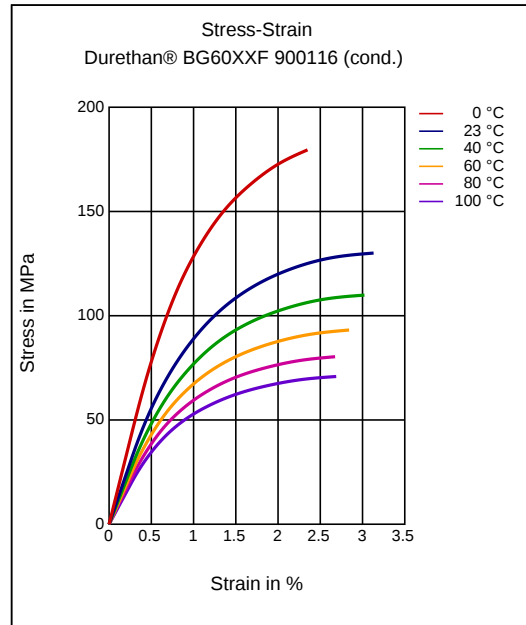
Envalior

Diagrams

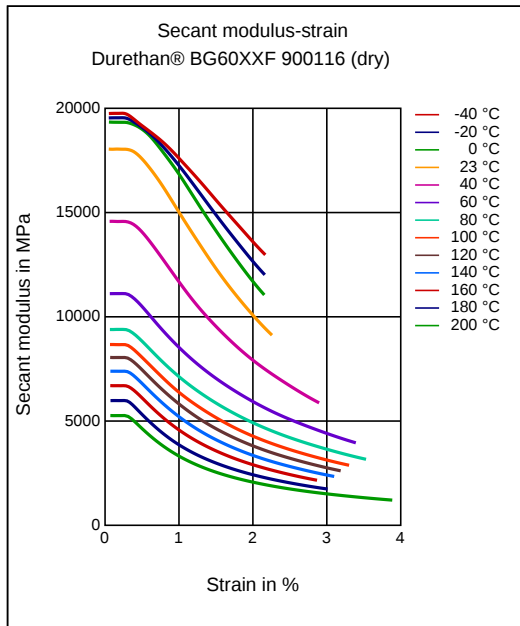
Stress-strain



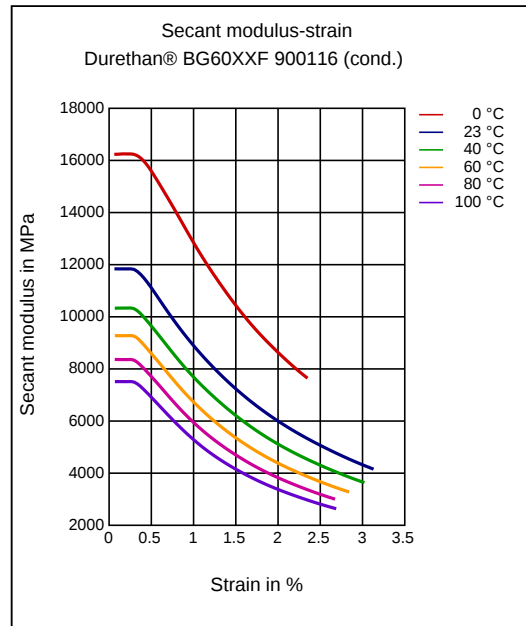
Stress-strain



Secant modulus-strain



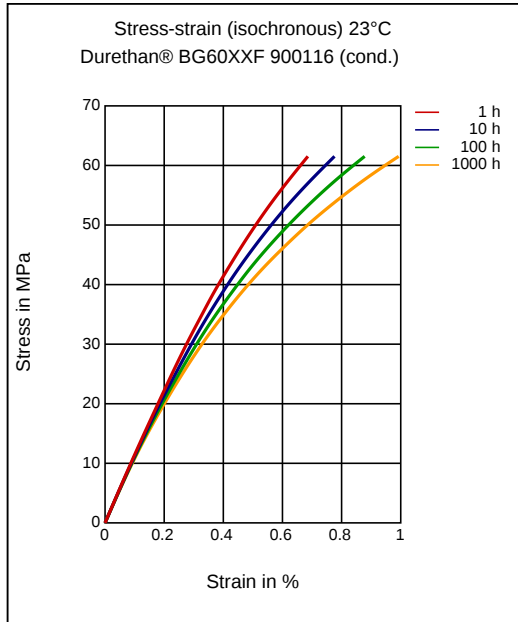
Secant modulus-strain



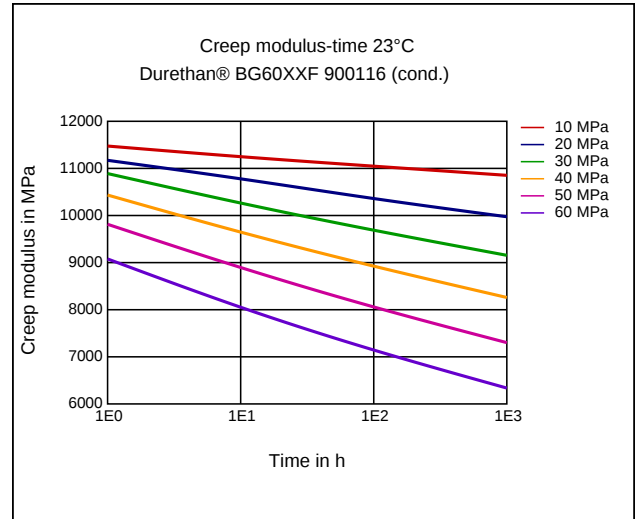
Durethan® BG60XXF 900116
PA6-(GF+GB)40

Envalior

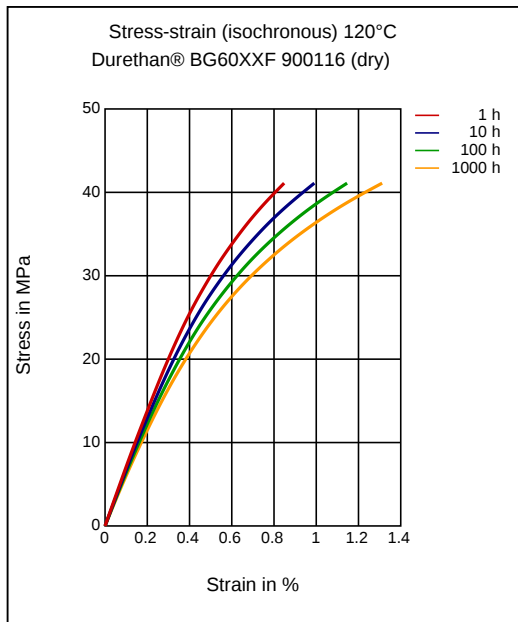
Stress-strain (isochronous) 23°C



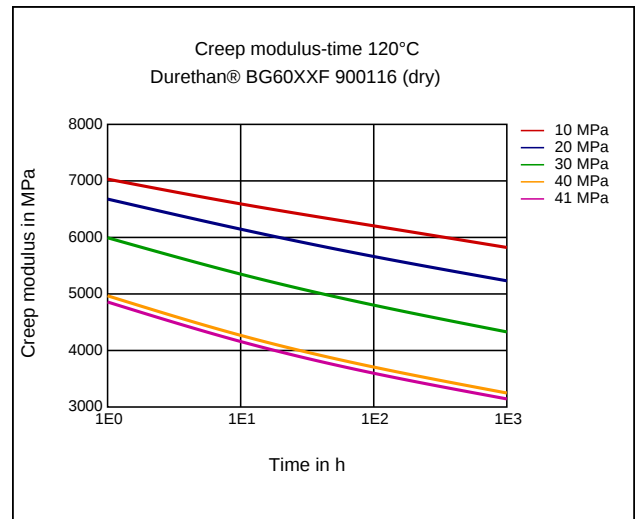
Creep modulus-time 23°C



Stress-strain (isochronous) 120°C



Creep modulus-time 120°C



Characteristics

Processing

Injection Molding

Delivery form

Pellets

Injection Molding

PREPROCESSING

Residual moisture content: 0.05 - 0.15%

Special Characteristics

Heat aging stabilized

Features

Low Warpage

Durethan® BG60XXF 900116

PA6-(GF+GB)40

Envalior

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
