

Durethan® BKV60XF 900116
PA6-GF60

Envalior

Injection Molding, 60% Glass Reinforced, Heat Stabilized, Improved flow

ISO 1043 PA6-GF60

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	0.2 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.5 / *	%	ISO 294-4, 2577

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	20200 / 13000	MPa	ISO 527
Stress at Break	215 / 140	MPa	ISO 527
Strain at Break	2.3 / 2.8	%	ISO 527
Impact Strength (Charpy), +23°C	88 / -	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	15 / -	kJ/m ²	ISO 179/1eA
Puncture - maximum force, +23°C	1100 / -	N	ISO 6603-2
Puncture - maximum force, -30°C	950 / -	N	ISO 6603-2
Puncture energy, +23°C	4.2 / -	J	ISO 6603-2
Puncture energy, -30°C	3.4 / -	J	ISO 6603-2
Flexural Modulus (23°C)	18500 / 14000	MPa	ISO 178
Notched Impact Strength (Izod), 23°C	15 / -	kJ/m ²	ISO 180/1A
Impact Strength (Izod), 23°C	80 / 75	kJ/m ²	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)	208 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	217 / *	°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	1690 / -	kg/m ³	ISO 1183
Bulk density	760	kg/m ³	-

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

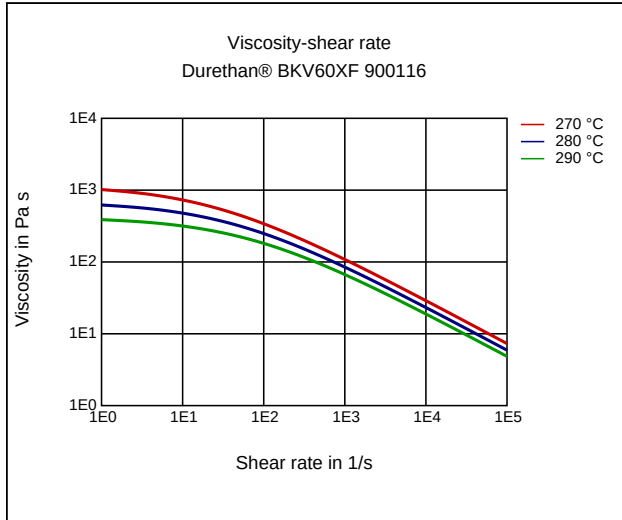
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 6	h	-
Processing humidity	≤0.15	%	-
Melt temperature	270 - 290	°C	-
Mold temperature	80 - 120	°C	-

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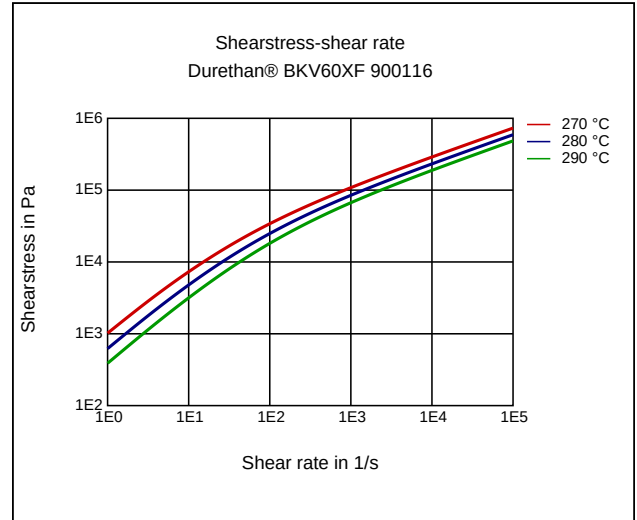
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Diagrams

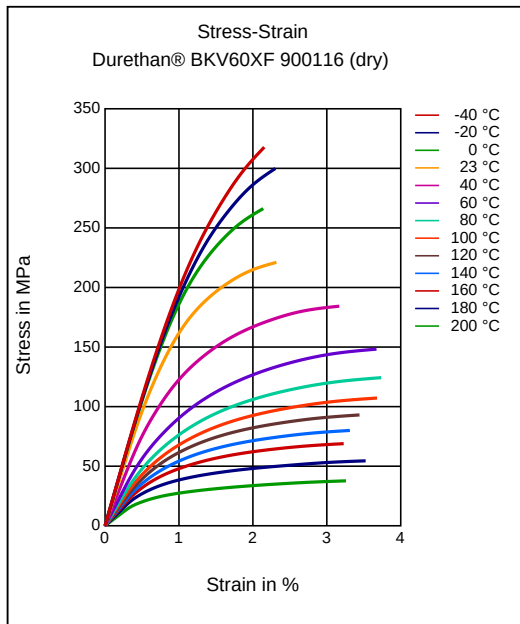
Viscosity-shear rate



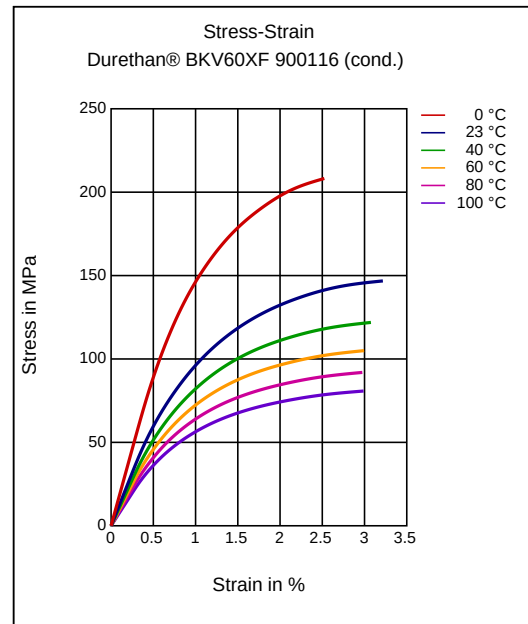
Shearstress-shear rate



Stress-strain



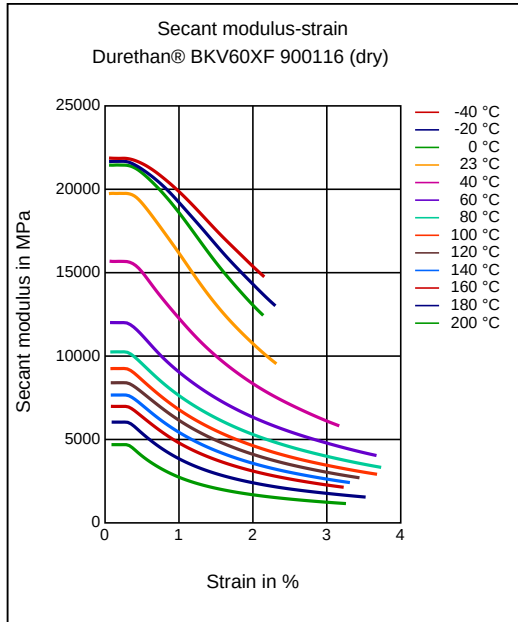
Stress-strain



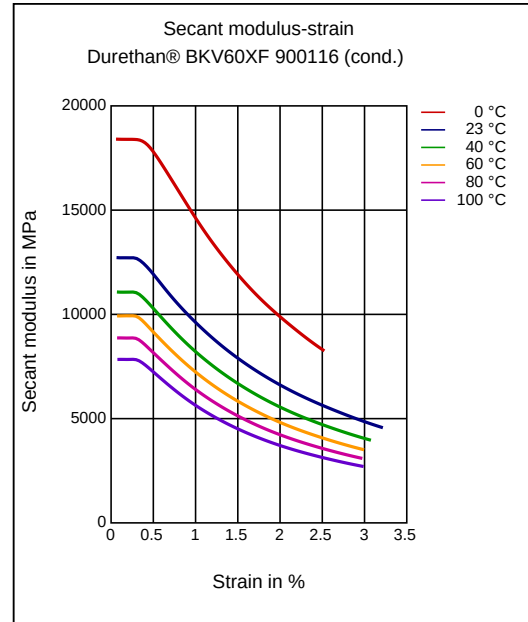
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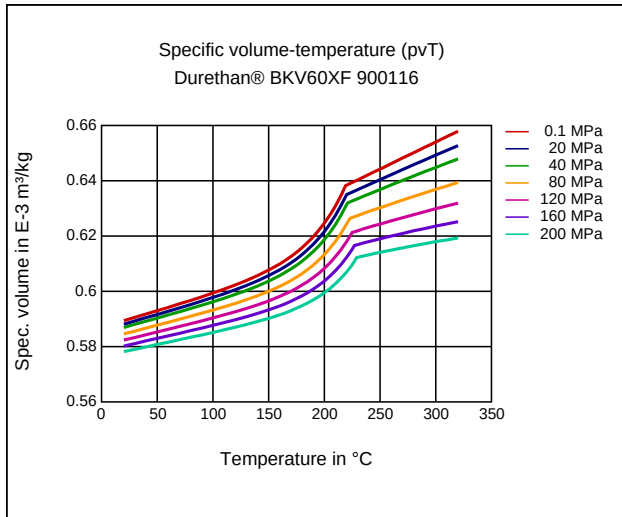
Secant modulus-strain



Secant modulus-strain



Specific volume-temperature (pvT)



Characteristics

Processing

Injection Molding

Delivery form

Pellets

Injection Molding

PREPROCESSING

Residual moisture content: 0.05 - 0.15%

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

Special Characteristics

Heat aging stabilized