

Durethan® BKV50PH2.0 901510
PA6-GF50

Envalior

Injection Molding, 50% Glass Reinforced, Heat Stabilized

ISO 1043 PA6-GF50

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	16300 / 9800	MPa	ISO 527
Stress at Break	220 / 140	MPa	ISO 527
Strain at Break	3 / 6	%	ISO 527
Impact Strength (Charpy), +23°C	100 / 105	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy), -30°C	100 / 90	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	20 / 25	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	17 / 15	kJ/m ²	ISO 179/1eA

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)	210 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	220 / *	°C	ISO 75-1/-2
Coeff. of Linear Therm. Expansion, parallel	15 / *	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	80 / *	E-6/K	ISO 11359-1/-2

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water Absorption	5 / *	%	Sim. to ISO 62
Humidity absorption	1.5 / *	%	Sim. to ISO 62
Density	1570 / -	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

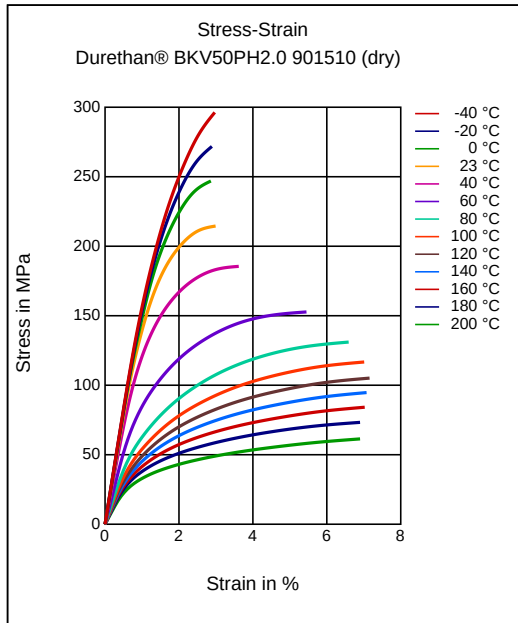
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 6	h	-
Processing humidity	≤0.12	%	-
Melt temperature	270 - 290	°C	-
Mold temperature	80 - 120	°C	-

Durethan® BKV50PH2.0 901510
PA6-GF50

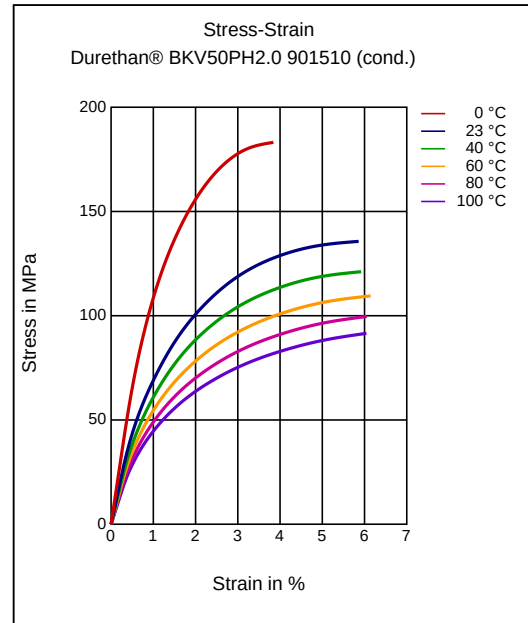
Envalior

Diagrams

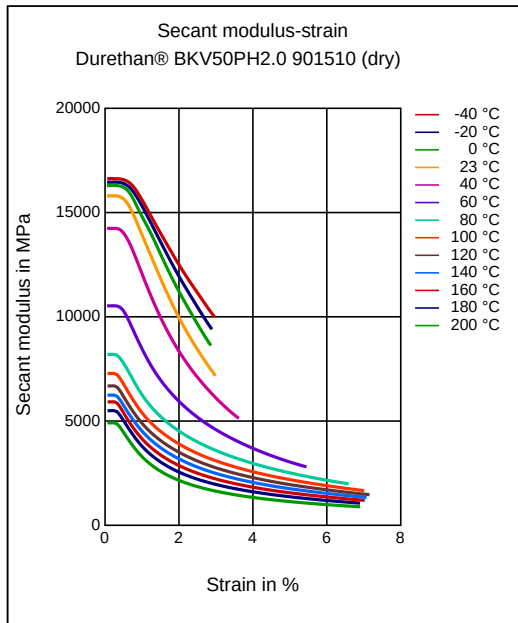
Stress-strain



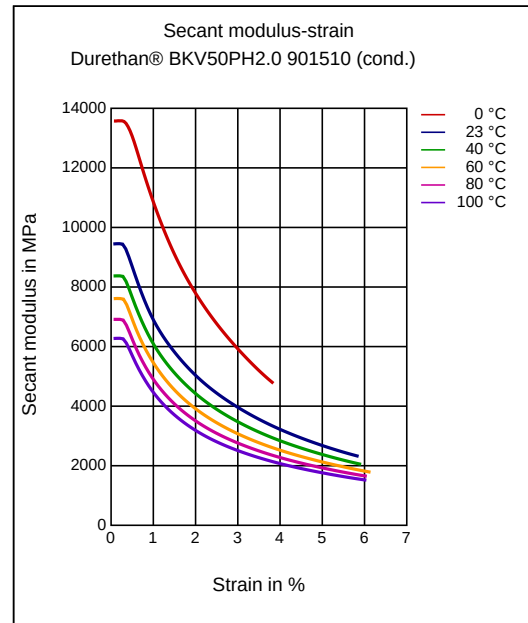
Stress-strain



Secant modulus-strain



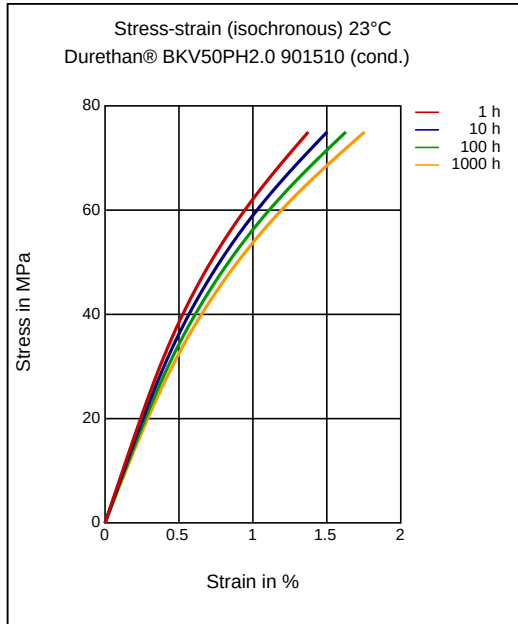
Secant modulus-strain



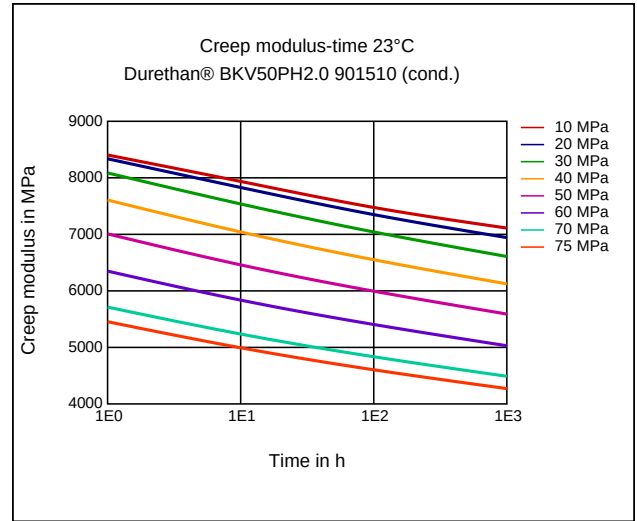
Durethan® BKV50PH2.0 901510
PA6-GF50

Envalior

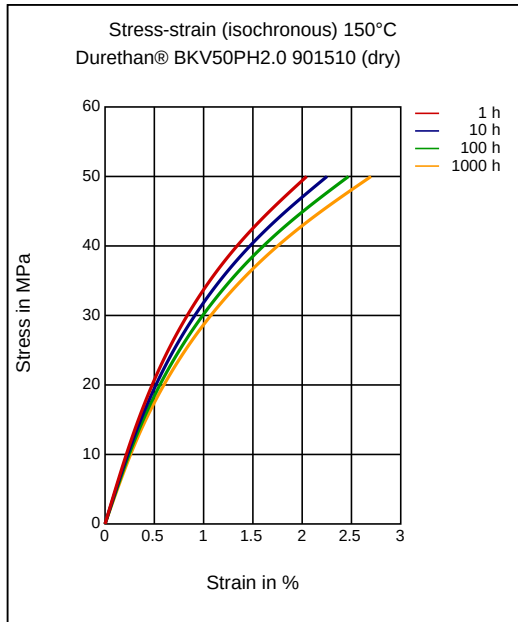
Stress-strain (isochronous) 23°C



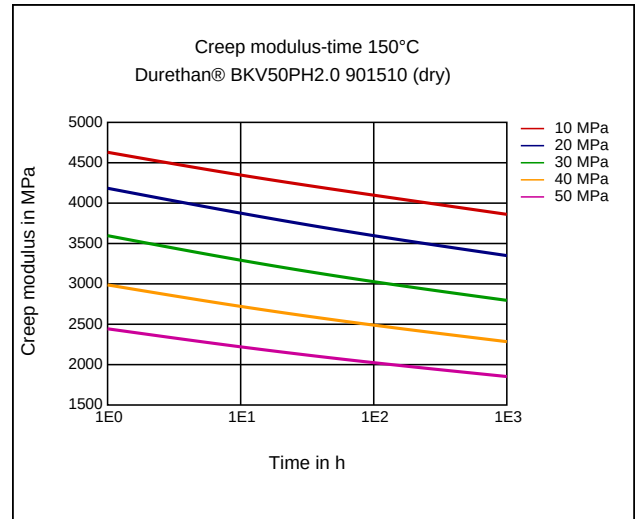
Creep modulus-time 23°C



Stress-strain (isochronous) 150°C



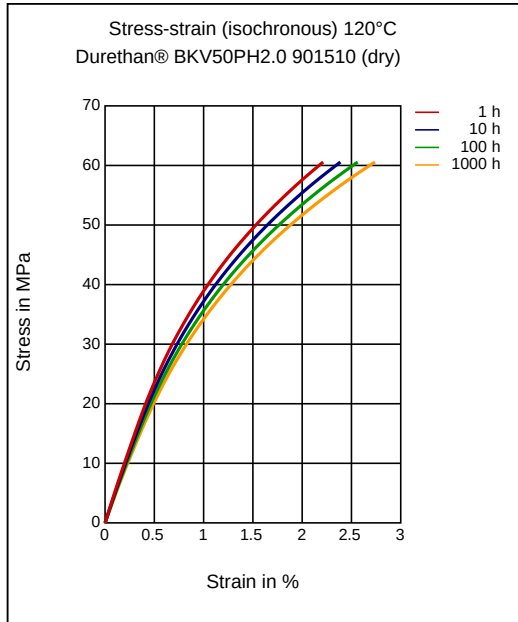
Creep modulus-time 150°C



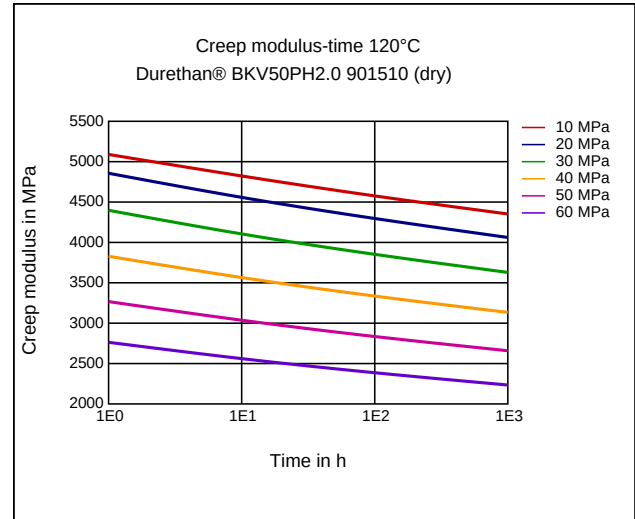
Durethan® BKV50PH2.0 901510
PA6-GF50

Envalior

Stress-strain (isochronous) 120 °C



Creep modulus-time 120 °C



Characteristics

Processing

Injection Molding

Delivery form

Pellets

Special Characteristics

Heat aging stabilized

Features

Fatigue Resistance

Injection Molding

PREPROCESSING

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

Mold temperature: 80 - 120 °C