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Envalior
Imagine the Future

ALBIS

Durethan® BKV30H2.0EF 901510

PA6-GF30 Envalior

Injection Molding, 30% Glass Reinforced, Heat Stabilized, Improved flow

ISO 1043 PA6-GF30

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	75 / *	cm³/10min	ISO 1133
Temperature	270 / *	°C	-
Load	5 / *	kg	-
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	9400 / 5500	MPa	ISO 527
Stress at Break	170 / 100	MPa	ISO 527
Strain at Break	3 / 5.8	%	ISO 527
Impact Strength (Charpy), +23°C	70 / 80	kJ/m²	ISO 179/1eU
Impact Strength (Charpy), -30°C	55 / 55	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	11 / 15	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	- / 10	kJ/m²	ISO 179/1eA
Puncture - maximum force, +23°C	800 / 1050	N	ISO 6603-2
Puncture - maximum force, -30°C	700 / 750	N	ISO 6603-2
Puncture energy, +23°C	2 / 4.6	J	ISO 6603-2
Puncture energy, -30°C	2 / 2	J	ISO 6603-2

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)	205 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	219 / *	°C	ISO 75-1/-2
Coeff. of Linear Therm. Expansion, parallel	20 / *	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	100 / *	E-6/K	ISO 11359-1/-2

Electrical Properties	dry / cond	Unit	Test Standard
ISO Data			
Electric Strength	33 / 25	kV/mm	IEC 60243-1
Comparative tracking index	400 / -	-	IEC 60112

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water Absorption	7 / *	%	Sim. to ISO 62
Humidity absorption	2.1 / *	%	Sim. to ISO 62
Density	1350 / -	kg/m³	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	≤0.12	%	-
Melt temperature	250 - 290	°C	-
Mold temperature	80 - 120	°C	-

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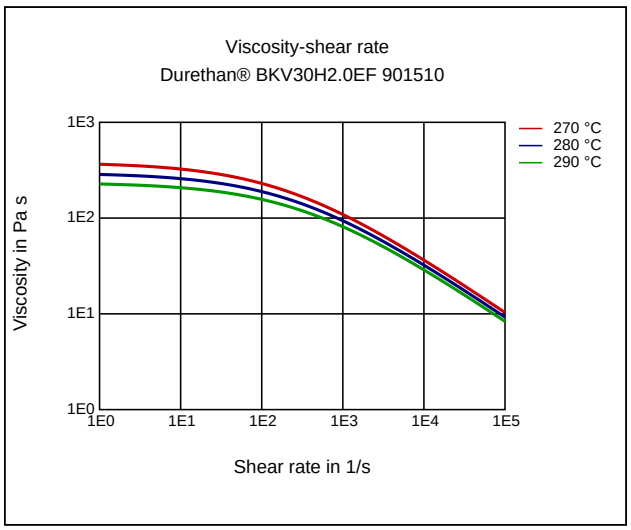
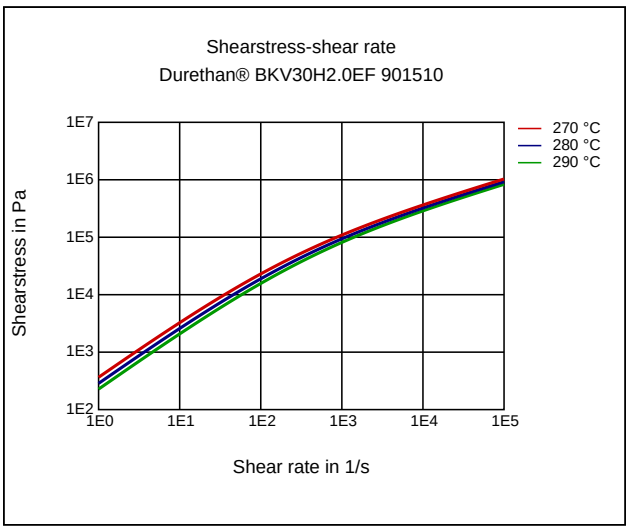
Diagrams

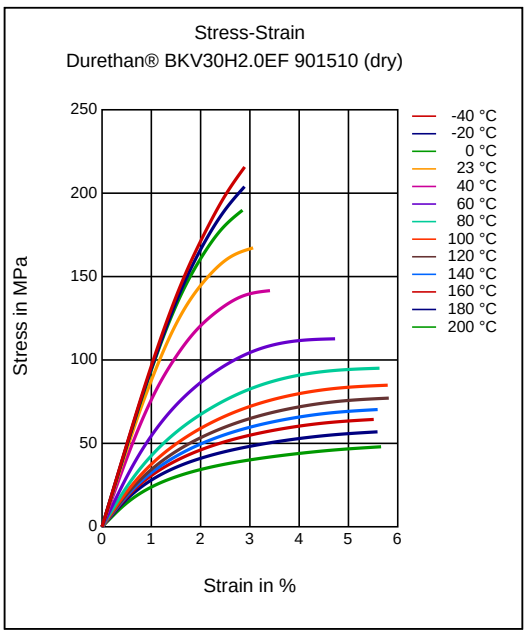
Viscosity-shear rate



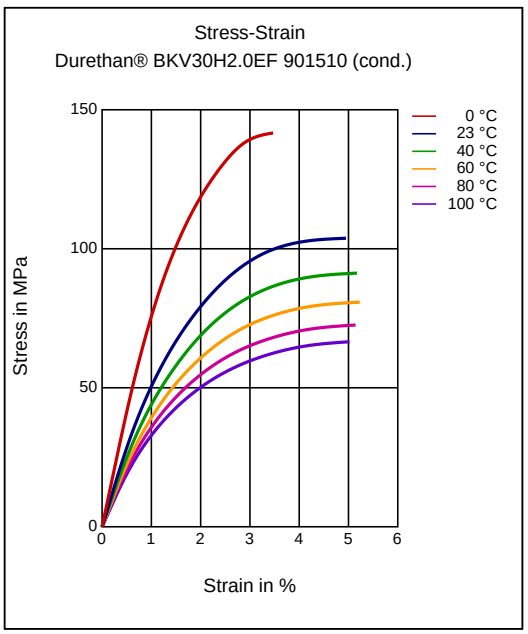
Shearstress-shear rate



Stress-strain



Stress-strain



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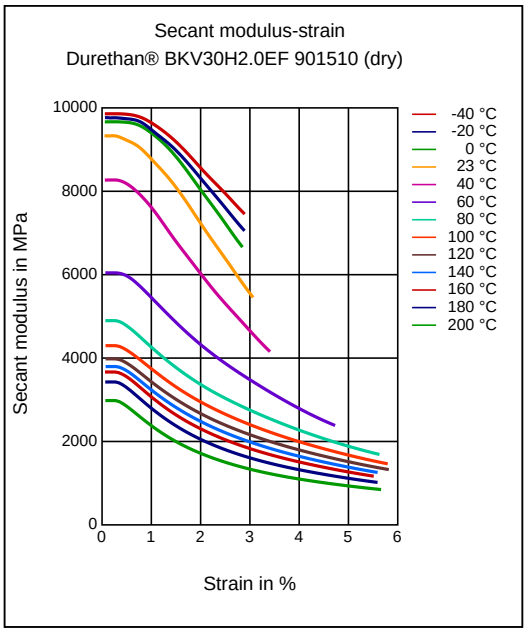
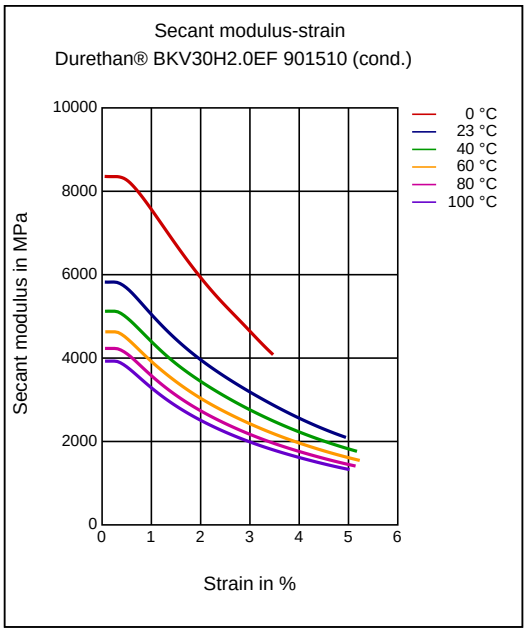
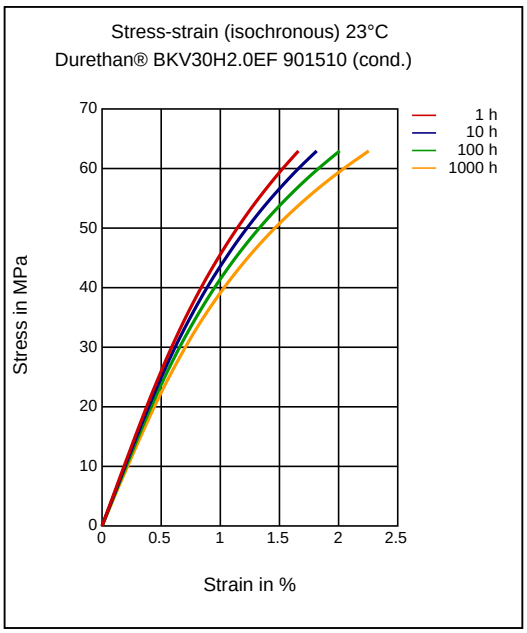
Secant modulus-strain



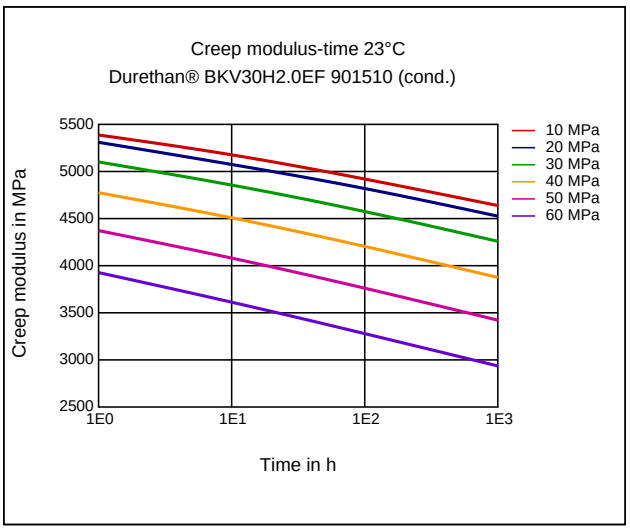
Secant modulus-strain



Stress-strain (isochronous) 23 °C



Creep modulus-time 23 °C



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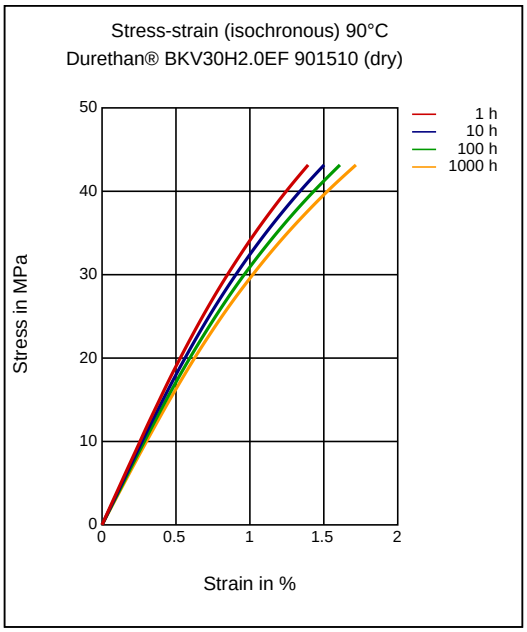
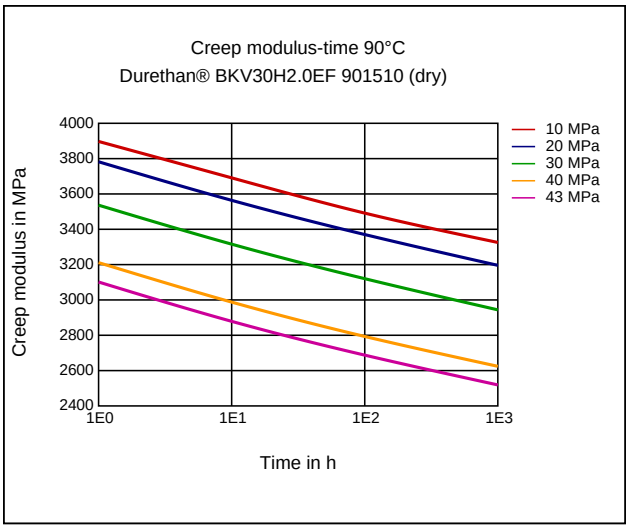
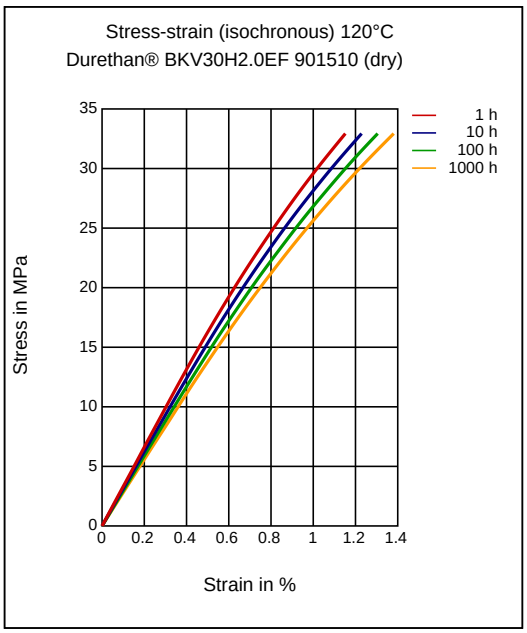
Stress-strain (isochronous) 90 °C



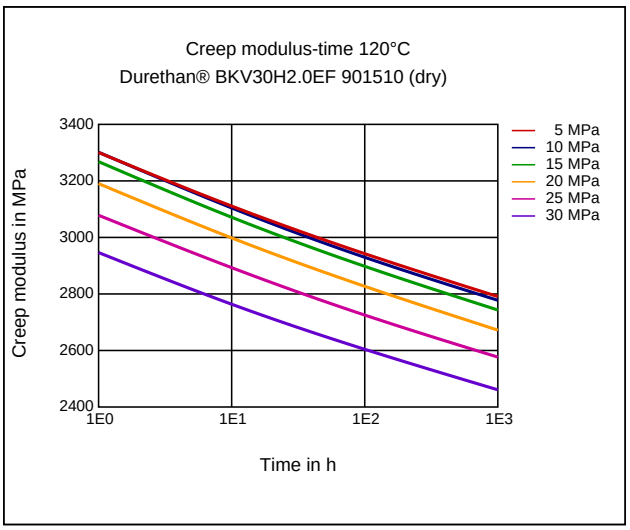
Creep modulus-time 90 °C



Stress-strain (isochronous) 120 °C



Creep modulus-time 120 °C



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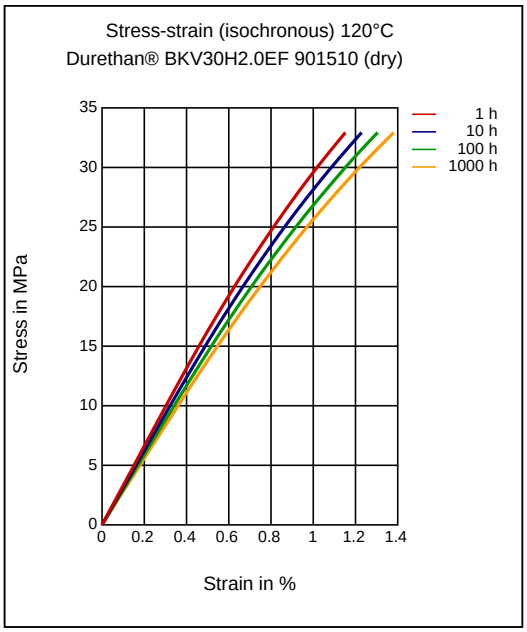
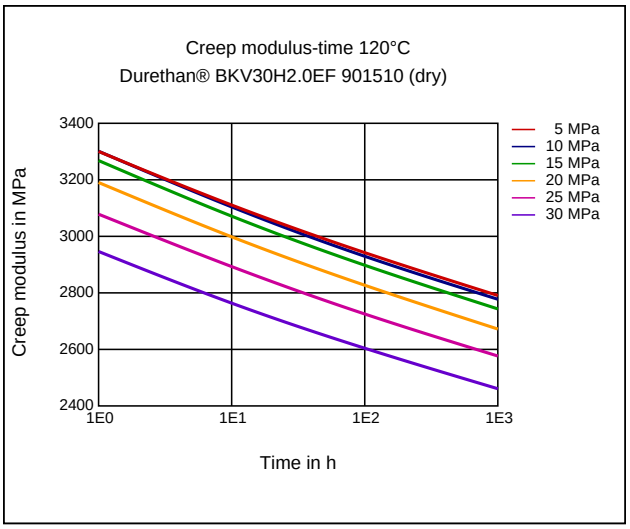
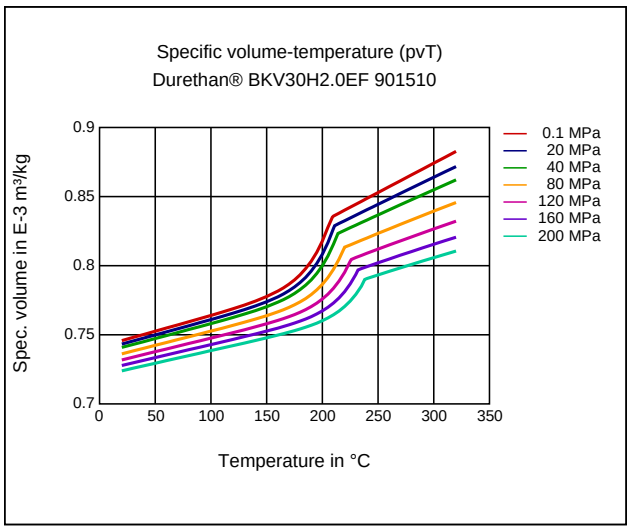
Stress-strain (isochronous) 120 °C



Creep modulus-time 120 °C



Specific volume-temperature (pvT)



Characteristics

Processing
Injection Molding

Additives
Release agent

Delivery form
Pellets

Special Characteristics
Heat aging stabilized

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): 250 - 290 °C
Mold temperature: 80 - 120 °C