Envalior
Imagine the Future

ALBIS

Durethan® BKV35H2.0 901510

PA6-GF35 Envalior

Injection Molding, 35% Glass Reinforced, Heat Stabilized

ISO 1043 PA6-GF35

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	11000 / 6500	MPa	ISO 527
Stress at Break	185 / 110	MPa	ISO 527
Strain at Break	3.3 / 6.5	%	ISO 527
Tensile Creep Modulus, 1h	* / 6000	MPa	ISO 899-1
Tensile Creep Modulus, 1000h	* / 4900	MPa	ISO 899-1
Impact Strength (Charpy), +23°C	90 / 100	kJ/m²	ISO 179/1eU
Impact Strength (Charpy), -30°C	75 / 70	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	12 / 20	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	- / 10	kJ/m²	ISO 179/1eA
Puncture - maximum force, +23°C	1060 / -	N	ISO 6603-2
Puncture - maximum force, -30°C	945 / -	N	ISO 6603-2
Puncture energy, +23°C	3.9 / -	J	ISO 6603-2
Puncture energy, -30°C	3.3 / -	J	ISO 6603-2
Flexural Modulus (23°C)	10500 / 6200	MPa	ISO 178
Notched Impact Strength (Izod), 23°C	15 / 20	kJ/m²	ISO 180/1A
Notched Impact Strength (Izod)	10 / 10	kJ/m²	ISO 180/1A
Temperature	-30	°C	-
Impact Strength (Izod), 23°C	80 / 90	kJ/m²	ISO 180/1U
Ball Indentation Hardness	230 / 120	MPa	ISO 2039-1

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)	205 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	215 / *	°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	95 / *	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	HB / *	class	UL 94
Thickness tested	1.5 / *	mm	-
Oxygen index	23 / *	%	ISO 4589-1/-2

Electrical Properties	dry / cond	Unit	Test Standard
ISO Data			
Comparative tracking index	475 / -	-	IEC 60112

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water Absorption	6.5 / *	%	Sim. to ISO 62
Humidity absorption	1.9 / *	%	Sim. to ISO 62
Density	1410 / -	kg/m³	ISO 1183
Bulk density	700	kg/m³	-

Material Specific Properties	dry / cond	Unit	Test Standard
ISO Data			
Viscosity number	140 / *	cm³/g	ISO 307, 1157, 1628

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

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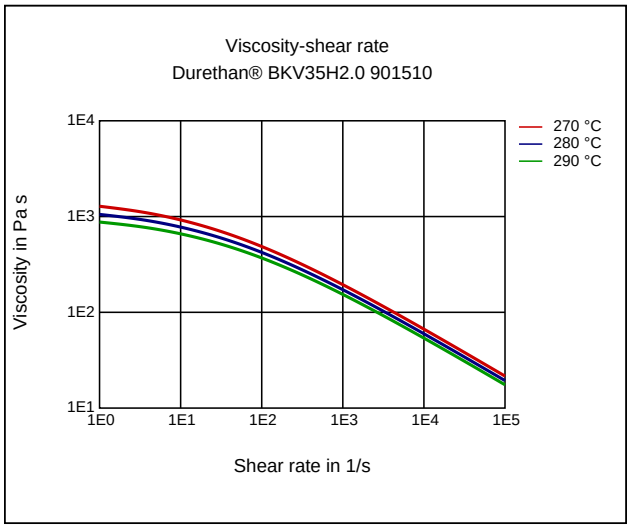
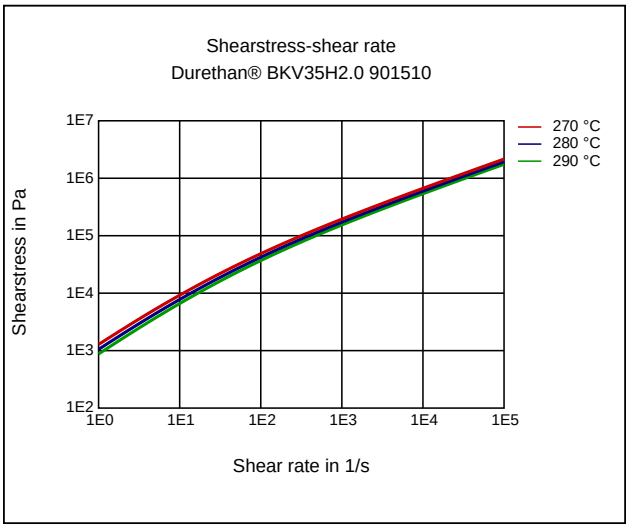
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 6	h	-
Processing humidity	≤0.12	%	-
Melt temperature	270 - 290	°C	-
Mold temperature	80 - 120	°C	-

Diagrams

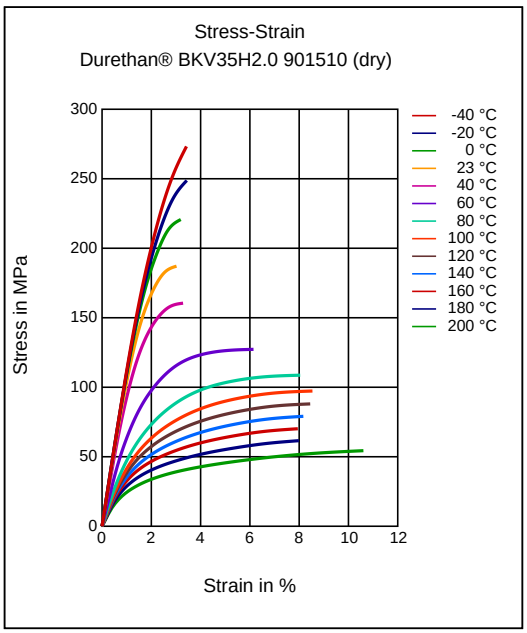
Viscosity-shear rate



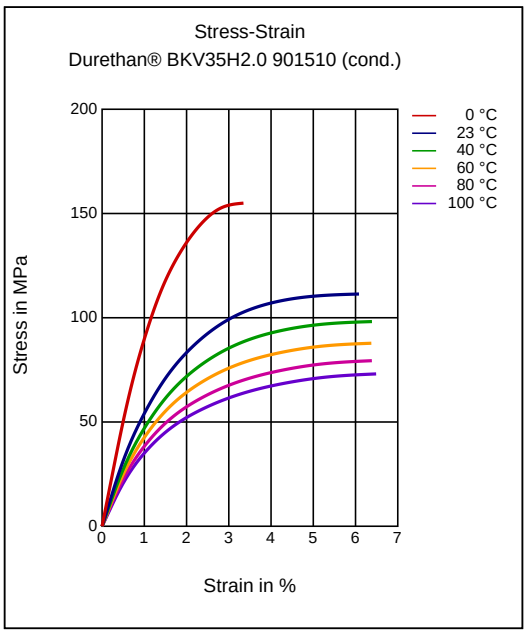
Shearstress-shear rate



Stress-strain



Stress-strain



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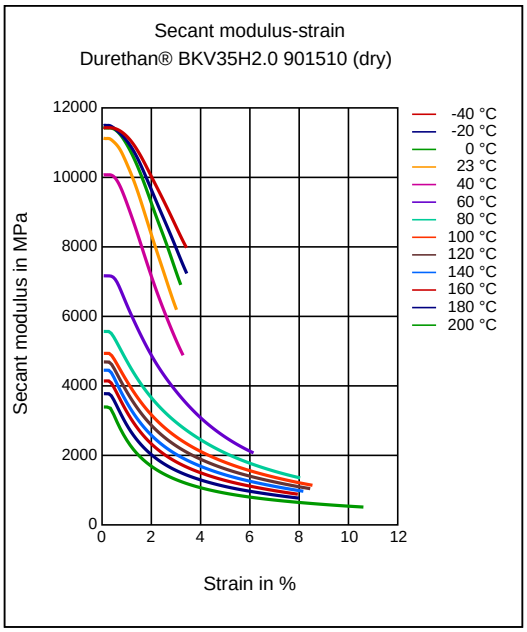
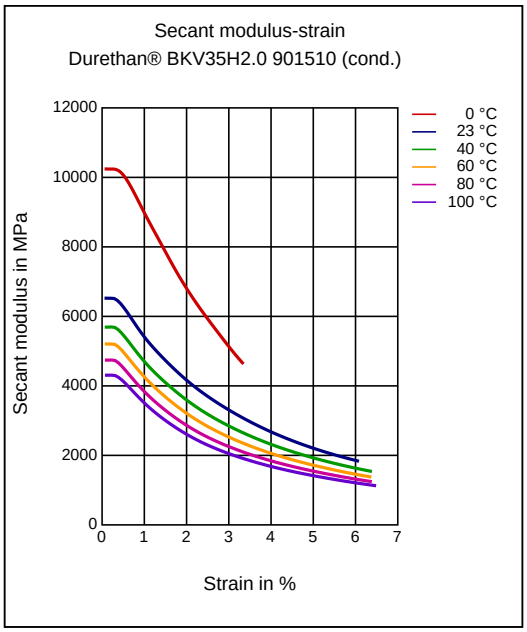
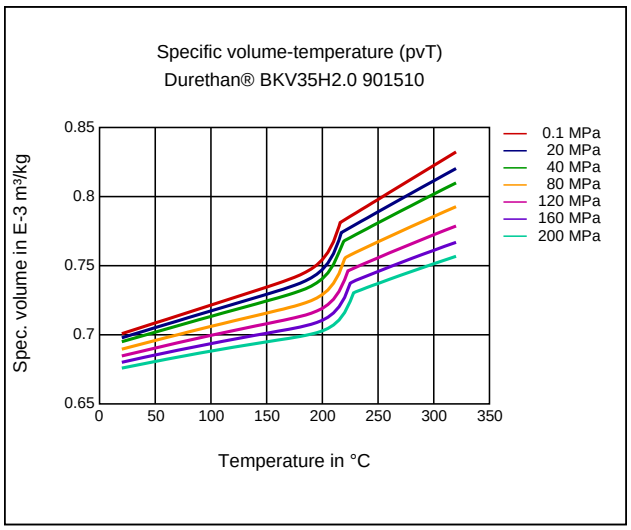
Secant modulus-strain



Secant modulus-strain



Specific volume-temperature (pvT)



Characteristics

Processing
Injection Molding

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): 270 - 290 °C
Mold temperature: 80 - 120 °C