

Durethan® AKV320ZH2.0 900116
PA66-I-GF20

Envalior

Blow Molding Grade, 20% Glass Reinforced, Heat Stabilized, Improved Impact, Excellent Surface Properties

ISO 1043 PA66-I-GF20

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	6400 / 3500	MPa	ISO 527
Stress at Break	120 / 75	MPa	ISO 527
Strain at Break	4.9 / 17.6	%	ISO 527
Impact Strength (Charpy), +23°C	85 / 115	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy), -30°C	95 / 115	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	15 / 30	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	- / 10	kJ/m ²	ISO 179/1eA
Puncture - maximum force, +23°C	1000 / 2100	N	ISO 6603-2
Puncture - maximum force, -30°C	700 / 850	N	ISO 6603-2
Puncture energy, +23°C	4.6 / 11.2	J	ISO 6603-2
Puncture energy, -30°C	3.2 / 3.7	J	ISO 6603-2

Thermal Properties	dry / cond	Unit	Test Standard
ISO Data			
Melting Temperature (10°C/min)	259 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	221 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	250 / *	°C	ISO 75-1/-2
Coeff. of Linear Therm. Expansion, parallel	30 / *	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	120 / *	E-6/K	ISO 11359-1/-2

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water Absorption	7 / *	%	Sim. to ISO 62
Humidity absorption	2 / *	%	Sim. to ISO 62
Density	1250 / -	kg/m ³	ISO 1183

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	290	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294

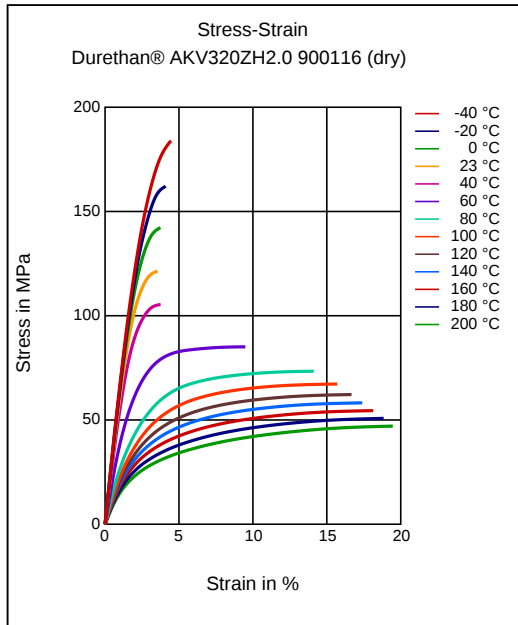
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 6	h	-
Processing humidity	≤0.06	%	-
Melt temperature	280 - 300	°C	-
Mold temperature	80 - 120	°C	-

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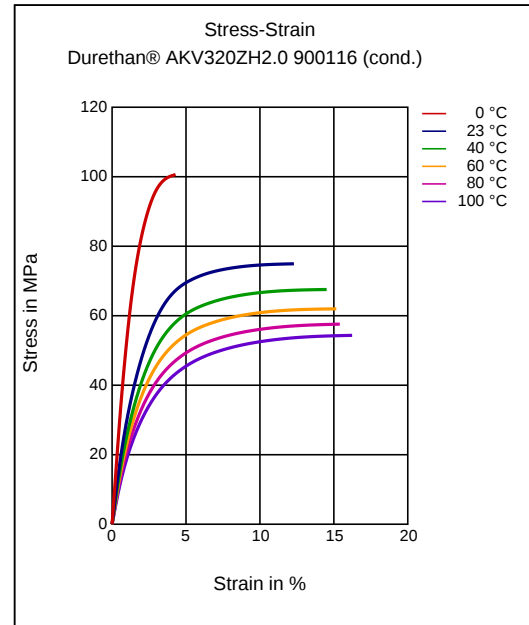
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Diagrams

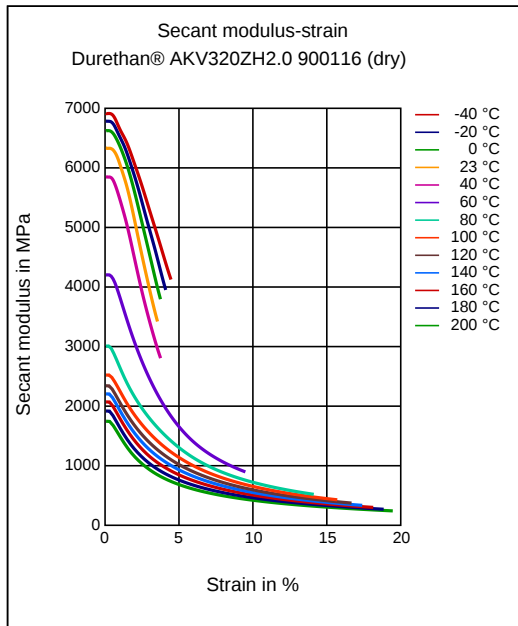
Stress-strain



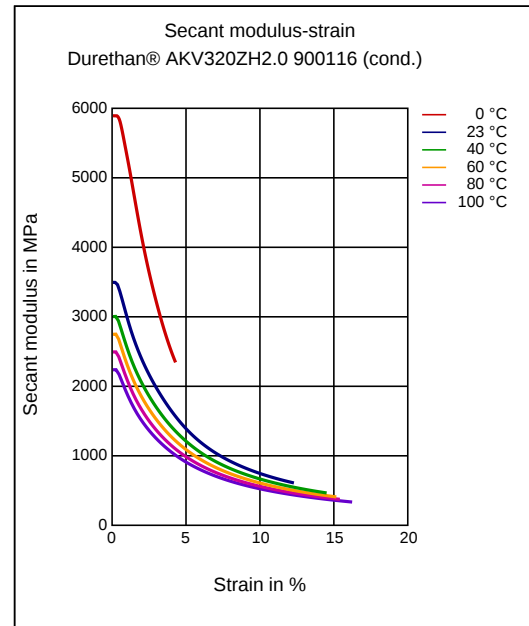
Stress-strain



Secant modulus-strain



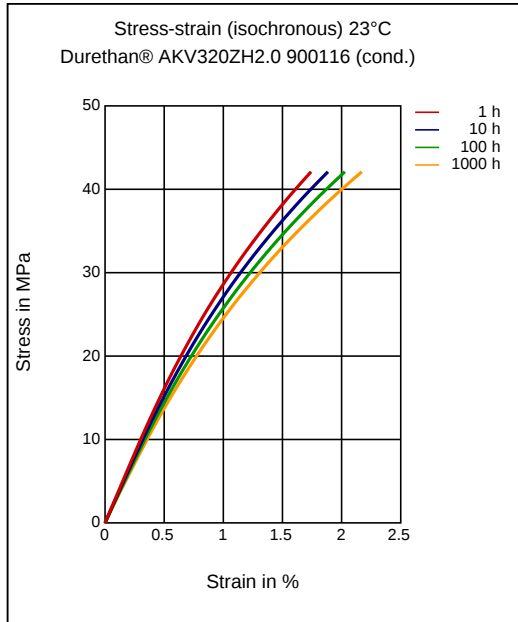
Secant modulus-strain



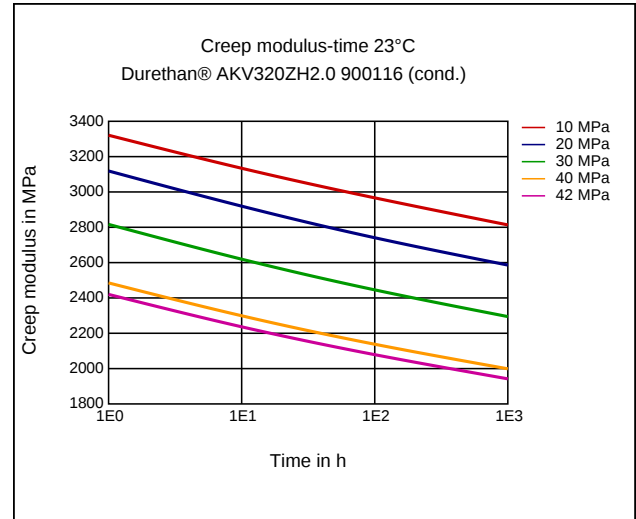
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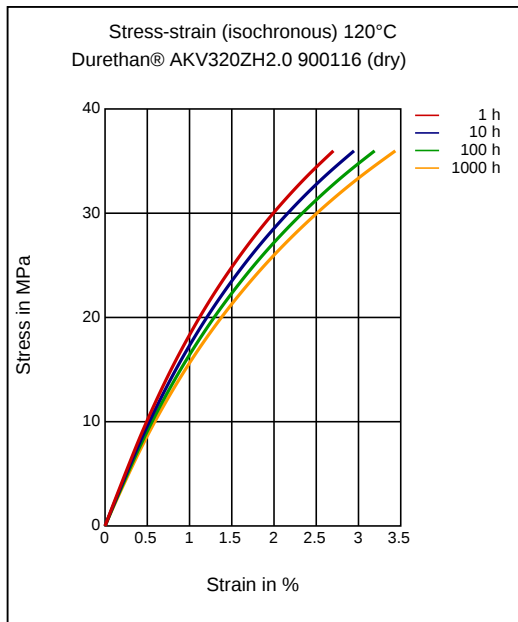
Stress-strain (isochronous) 23°C



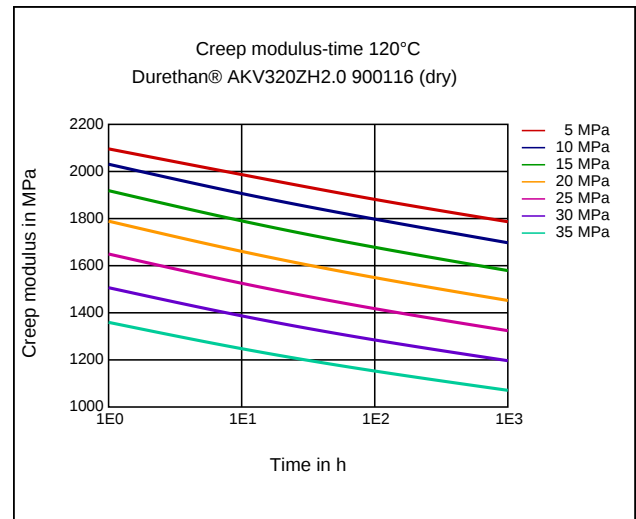
Creep modulus-time 23°C



Stress-strain (isochronous) 120°C



Creep modulus-time 120°C



Characteristics

Processing

Blow Molding, Thermoforming

Delivery form

Pellets

Injection Molding

PREPROCESSING

Residual moisture content: 0.00 - 0.06%

Special Characteristics

Impact modified, Heat aging stabilized

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Drying temperature dry air dryer: 80 °C

Drying time dry air dryer 2 - 6 h

PROCESSING

Melt temperature (Tmin - Tmax): 280 - 300 °C

Mold temperature: 80 - 120 °C
