

Durethan® BC550Z 900116 DUSXBL
PA6-I

Envalior

Blow Molding Grade, Unreinforced, Heat Stabilized, Improved Impact

ISO 1043 PA6-I

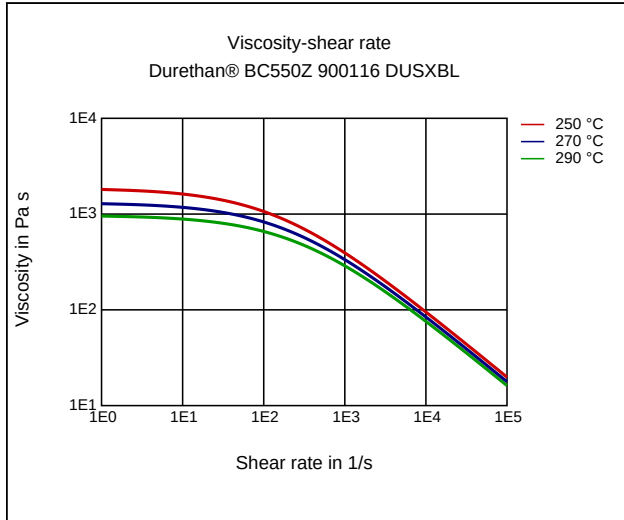
Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	1.5 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	1.5 / *	%	ISO 294-4, 2577
Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	2000 / 430	MPa	ISO 527
Yield stress	50 / -	MPa	ISO 527
Yield strain	4 / -	%	ISO 527
Nominal strain at break	>50 / -	%	ISO 527
Impact Strength (Charpy), +23°C	no break / no break	kJ/m²	ISO 179/1eU
Impact Strength (Charpy), -30°C	no break / no break	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	100 / 130	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	25 / 25	kJ/m²	ISO 179/1eA
Puncture - maximum force, +23°C	5000 / -	N	ISO 6603-2
Puncture - maximum force, -30°C	5700 / -	N	ISO 6603-2
Puncture energy, +23°C	65 / -	J	ISO 6603-2
Puncture energy, -30°C	67 / -	J	ISO 6603-2
Thermal Properties	dry / cond	Unit	Test Standard
ISO Data			
Melting Temperature (10°C/min)	219 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	53 / *	°C	ISO 75-1/-2
Coeff. of Linear Therm. Expansion, parallel	140 / *	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	130 / *	E-6/K	ISO 11359-1/-2
Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water Absorption	9.1 / *	%	Sim. to ISO 62
Humidity absorption	2.5 / *	%	Sim. to ISO 62
Density	1070 / -	kg/m³	ISO 1183
Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	260	°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	230 - 280	°C	-
Mold temperature	60 - 90	°C	-

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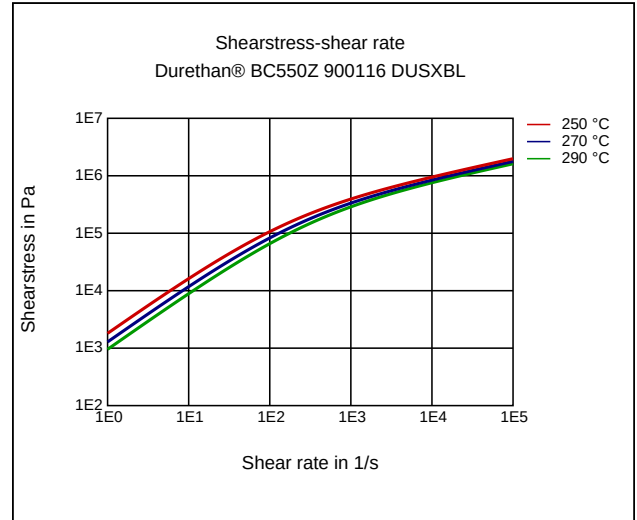
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Diagrams

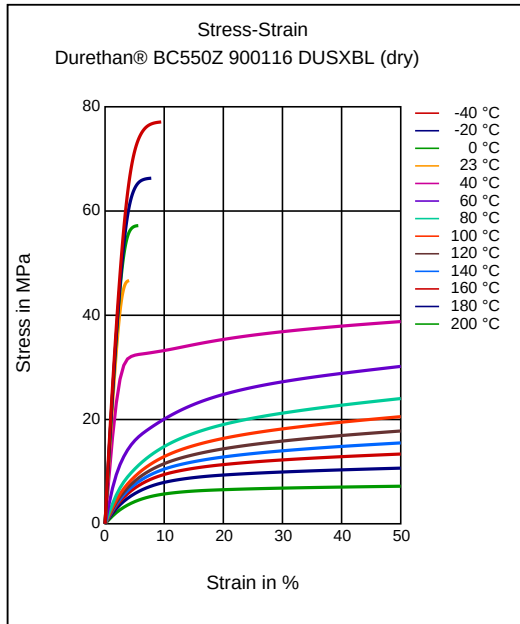
Viscosity-shear rate



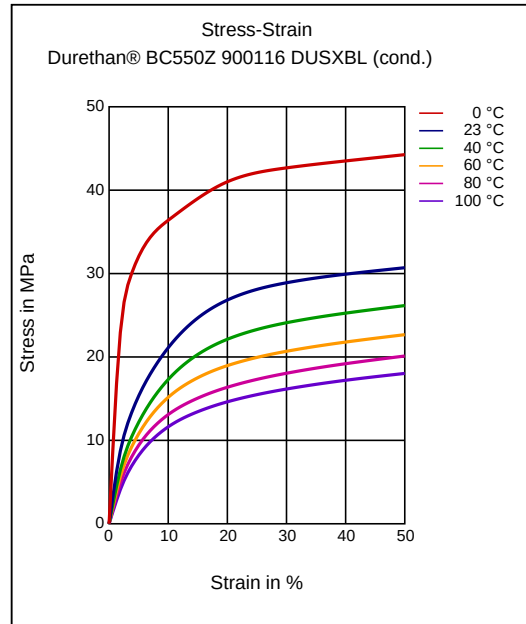
Shearstress-shear rate



Stress-strain



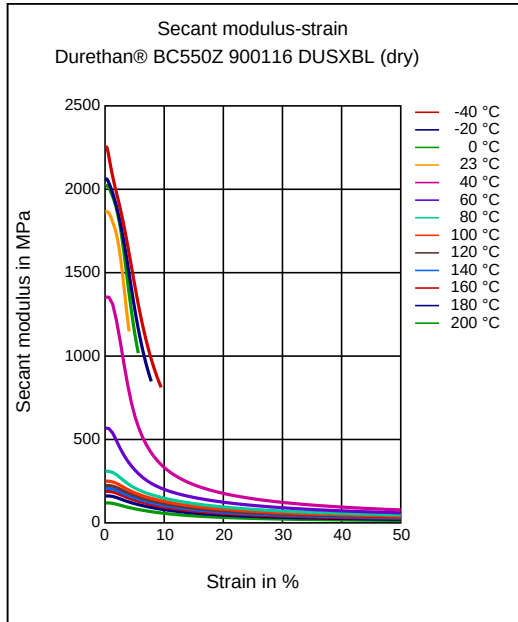
Stress-strain



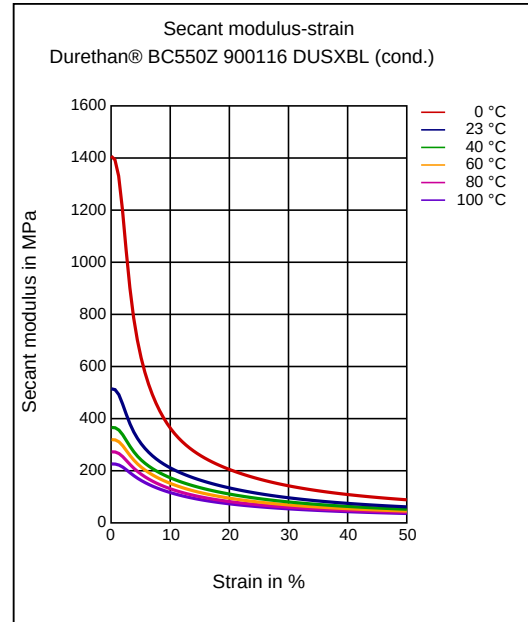
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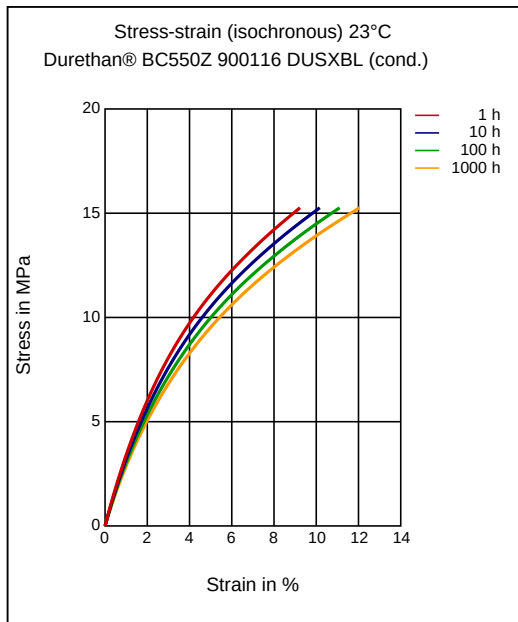
Secant modulus-strain



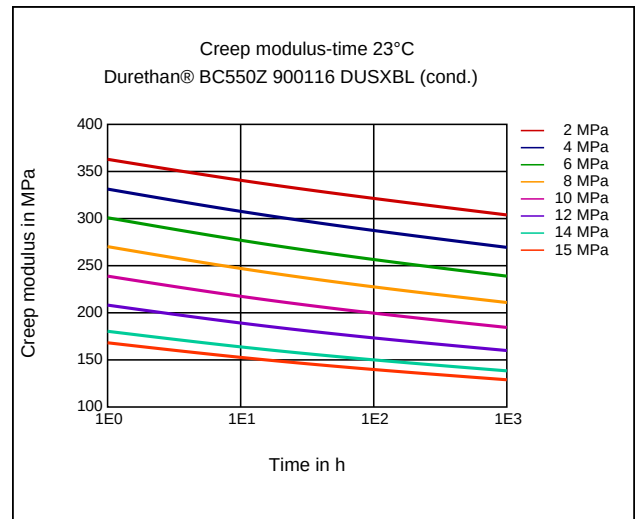
Secant modulus-strain



Stress-strain (isochronous) 23 °C



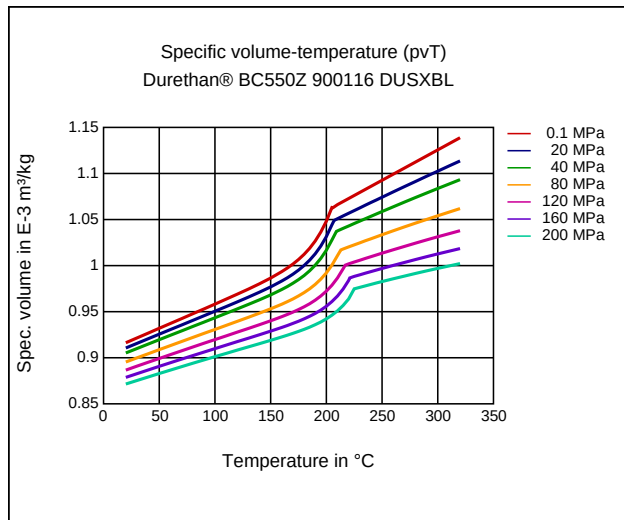
Creep modulus-time 23 °C



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Specific volume-temperature (pvT)



Characteristics

Processing

Profile Extrusion, Sheet Extrusion, Other Extrusion, Blow Molding

Delivery form

Pellets

Special Characteristics

Impact modified, Heat aging stabilized

Injection Molding

PREPROCESSING

Residual moisture content: 0.00 - 0.06%

Drying temperature dry air dryer: 80 °C

Drying time dry air dryer 2 - 6 h

PROCESSING

Melt temperature (Tmin - Tmax): 230 - 280 °C

Mold temperature: 60 - 90 °C