Durethan® DPBKV60H2.0EF 900116

PA6-GF60 Envalior

Injection Molding, 60% Glass Reinforced, Heat Stabilized, Improved flow

ISO 1043 PA6-GF60

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	0.3 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.5 / *	%	ISO 294-4, 2577

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	20500 / 13100	MPa	ISO 527
Stress at Break	230 / 150	MPa	ISO 527
Strain at Break	2.4 / 3.1	%	ISO 527
Impact Strength (Charpy), +23°C	90 / 90	kJ/m²	ISO 179/1eU
Impact Strength (Charpy), -30°C	90 / 90	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	16 / 20	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	16 / -	kJ/m²	ISO 179/1eA

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)	213 / *	°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	12 / *	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	75 / *	E-6/K	ISO 11359-1/-2

Electrical Properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	5.3 / 11.2	-	IEC 62631-2-1
Relative permittivity, 1MHz	4.7 / 5.1	-	IEC 62631-2-1
Dissipation Factor, 100Hz	164 / 2150	E-4	IEC 62631-2-1
Dissipation Factor, 1MHz	177 / 651	E-4	IEC 62631-2-1
Volume Resistivity	5.8E12 / 8E9	Ohm*m	IEC 62631-3-1
Electric Strength	33 / 33	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	-	IEC 60112

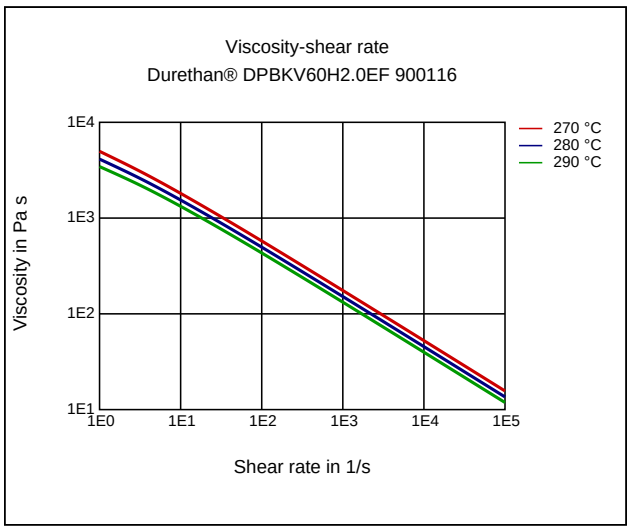
Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water Absorption	3.6 / *	%	Sim. to ISO 62
Humidity absorption	1.1 / *	%	Sim. to ISO 62
Density	1720 / -	kg/m³	ISO 1183

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

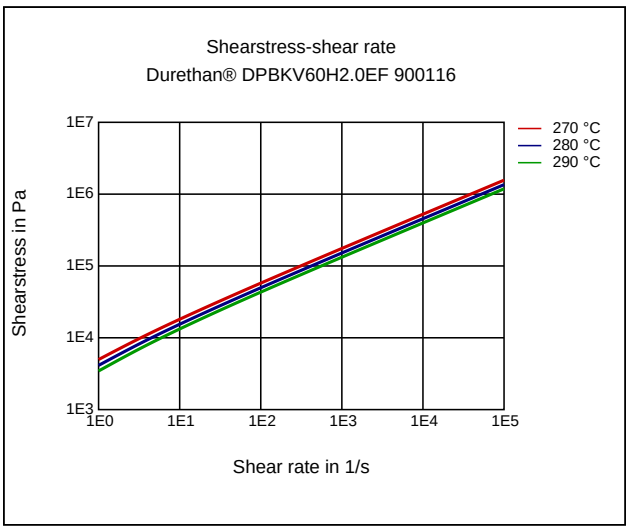
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 6	h	-
Processing humidity	≤0.15	%	-
Melt temperature	270 - 290	°C	-
Mold temperature	80 - 120	°C	-

Diagrams

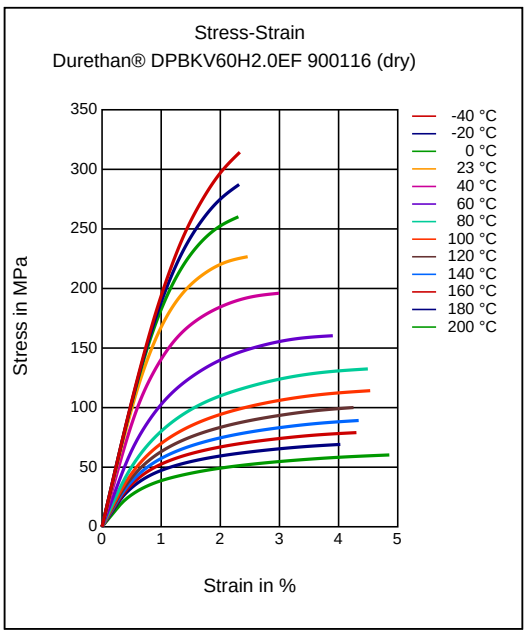
Viscosity-shear rate



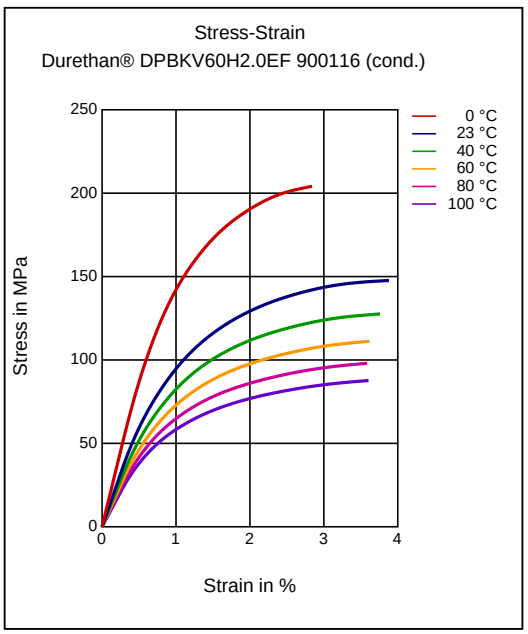
Shearstress-shear rate



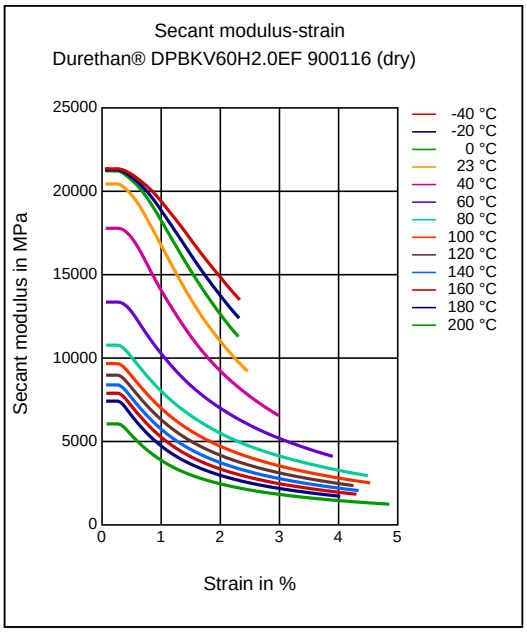
Stress-strain



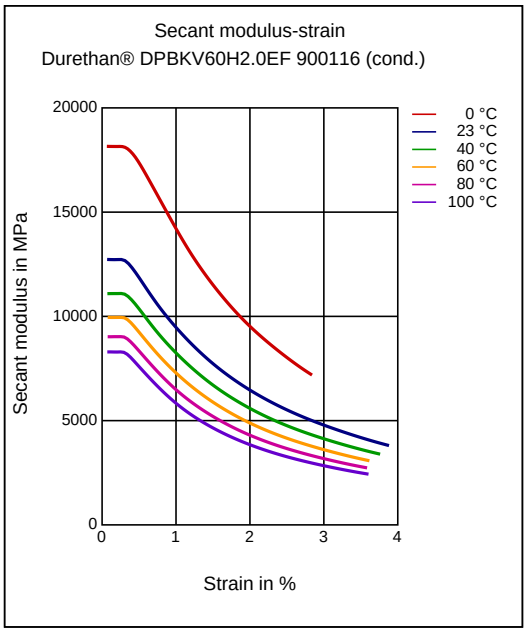
Stress-strain



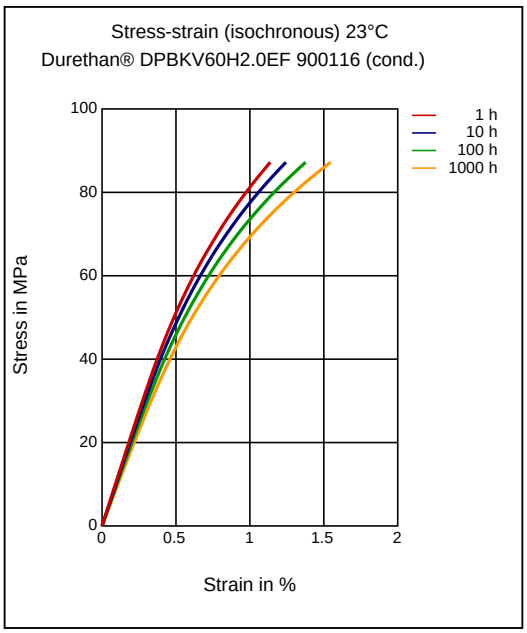
Secant modulus-strain



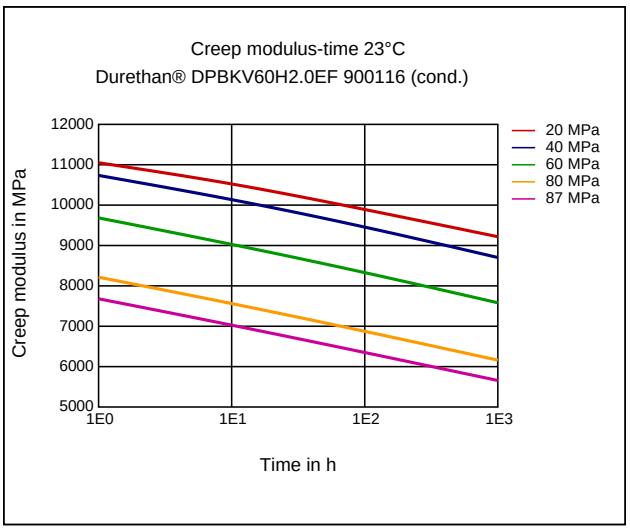
Secant modulus-strain



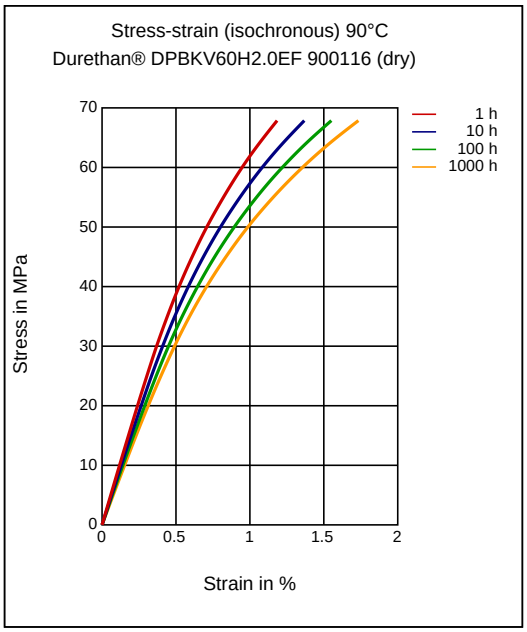
Stress-strain (isochronous) 23 °C



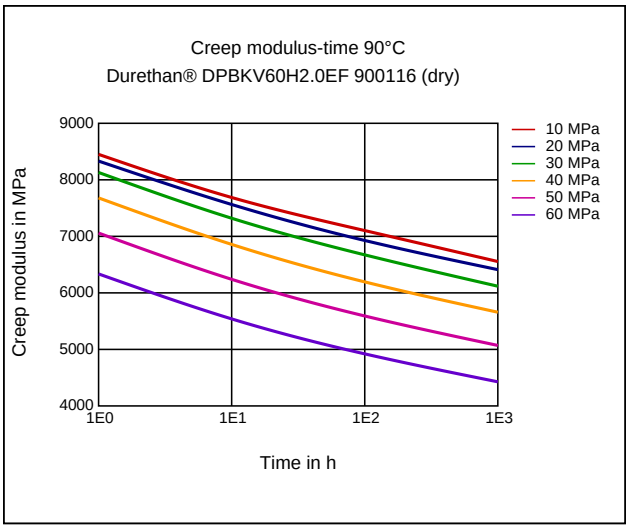
Creep modulus-time 23 °C



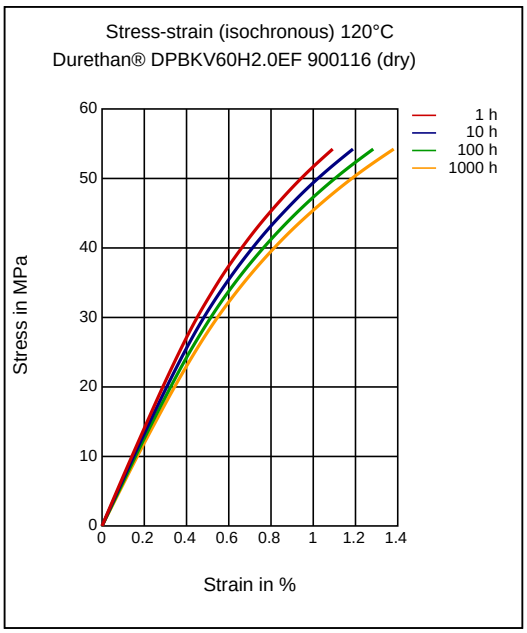
Stress-strain (isochronous) 90 °C



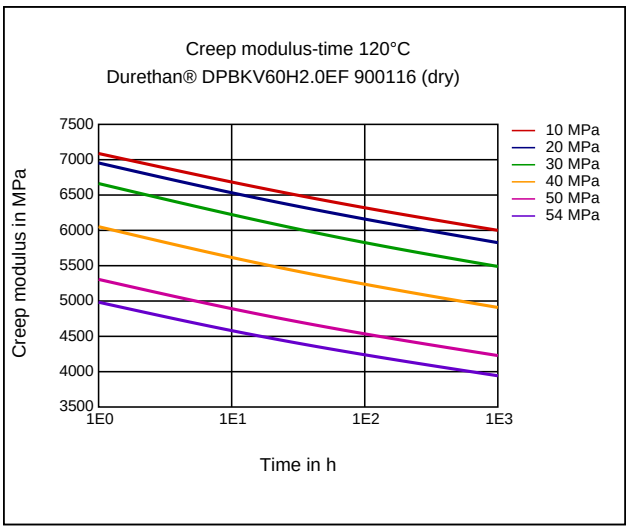
Creep modulus-time 90 °C



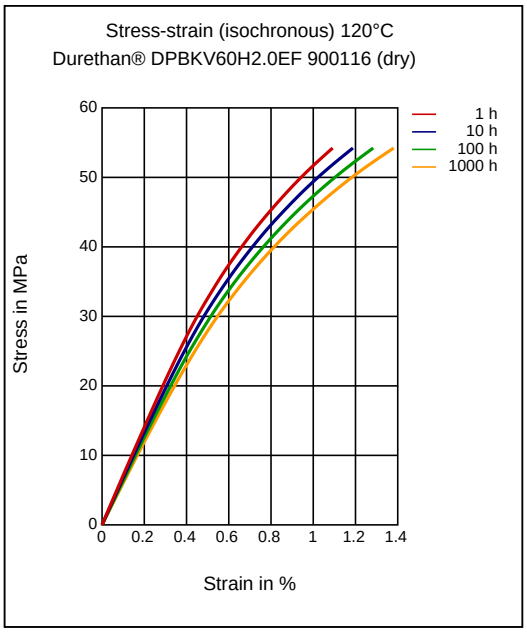
Stress-strain (isochronous) 120 °C



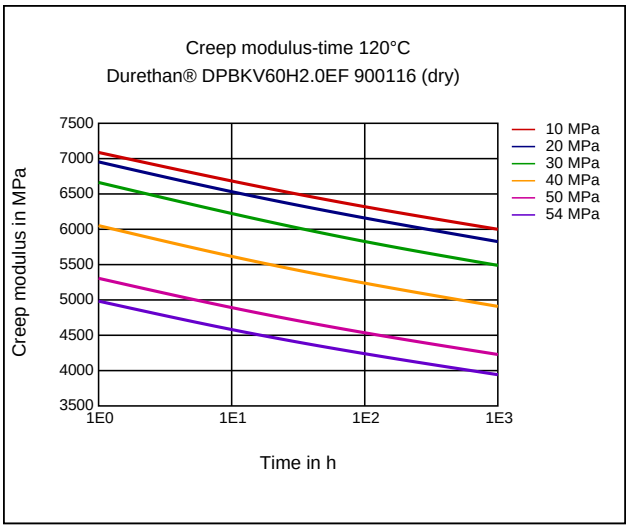
Creep modulus-time 120 °C



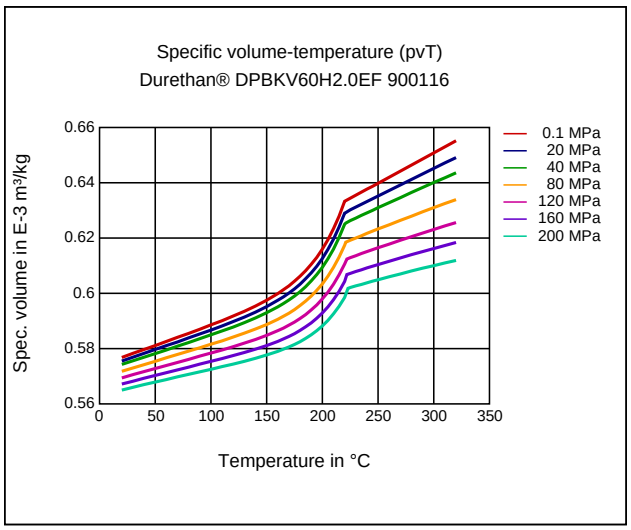
Stress-strain (isochronous) 120 °C



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: 0.05 - 0.15%
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

Disclaimer

Liability Exclusion
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