+135-3858-6433 (GuangDong)
+188-1699-6168 (ShangHai)
+852-6957-5415 (HongKong)

Envalior
Imagine the Future

ALBIS

Durethan® AKV30H2.0 901510

PA66-GF30 Envalior

Injection Molding, 30% Glass Reinforced, Heat Stabilized

ISO 1043 PA66-GF30

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	0.4 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.9 / *	%	ISO 294-4, 2577

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	10000 / 6000	MPa	ISO 527
Stress at Break	175 / 110	MPa	ISO 527
Strain at Break	3 / 6	%	ISO 527
Impact Strength (Charpy), +23°C	75 / 85	kJ/m²	ISO 179/1eU
Impact Strength (Charpy), -30°C	60 / 60	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	- / 14	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	- / 10	kJ/m²	ISO 179/1eA
Puncture - maximum force, +23°C	900 / 1160	N	ISO 6603-2
Puncture - maximum force, -30°C	800 / -	N	ISO 6603-2
Puncture energy, +23°C	2.8 / 5.4	J	ISO 6603-2
Puncture energy, -30°C	2.3 / -	J	ISO 6603-2

Thermal Properties	dry / cond	Unit	Test Standard
ISO Data			
Melting Temperature (10°C/min)	263 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	242 / *	°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	90 / *	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			
Relative permittivity, 100Hz	4 / 12	-	IEC 62631-2-1
Relative permittivity, 1MHz	4 / 4	-	IEC 62631-2-1
Dissipation Factor, 100Hz	120 / 2700	E-4	IEC 62631-2-1
Dissipation Factor, 1MHz	190 / 800	E-4	IEC 62631-2-1
Volume Resistivity	1E13 / 1E10	Ohm*m	IEC 62631-3-1
Surface Resistivity	* / 1E13	Ohm	IEC 62631-3-2
Electric Strength	35 / 30	kV/mm	IEC 60243-1
Comparative tracking index	475 / -	-	IEC 60112

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water Absorption	5.5 / *	%	Sim. to ISO 62
Humidity absorption	2 / *	%	Sim. to ISO 62
Density	1360 / -	kg/m³	ISO 1183

Material Specific Properties	dry / cond	Unit	Test Standard
ISO Data			
Viscosity number	146 / *	cm³/g	ISO 307, 1157, 1628

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

+135-3858-6433 (GuangDong)
+188-1699-6168 (ShangHai)
+852-6957-5415 (HongKong)

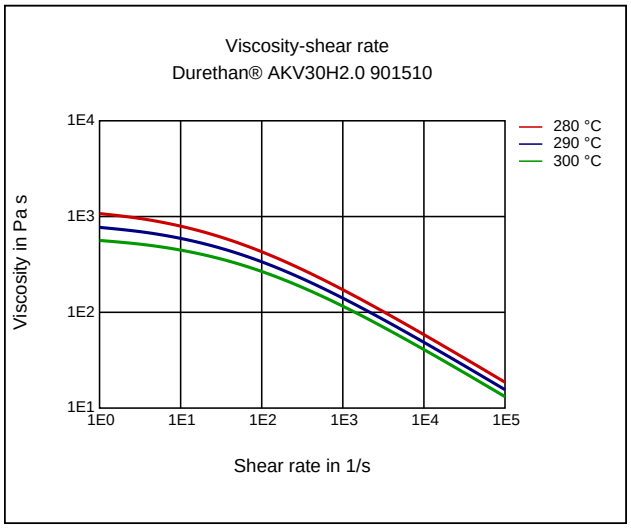
Durethan® AKV30H2.0 901510

PA66-GF30 Envalior

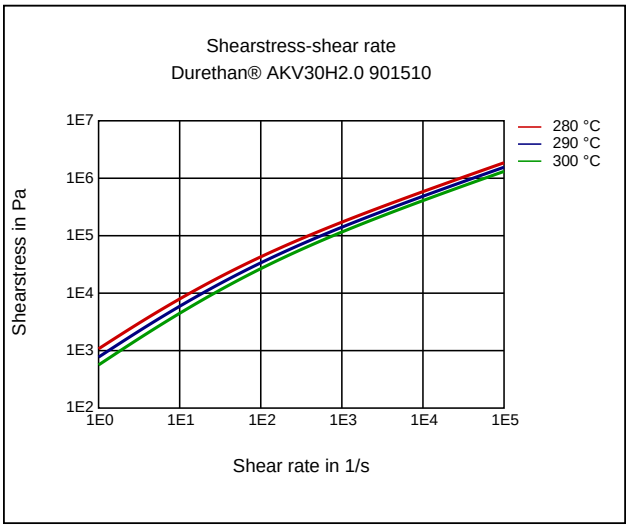
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 6	h	-
Processing humidity	≤0.12	%	-
Melt temperature	280 - 300	°C	-
Mold temperature	80 - 120	°C	-

Diagrams

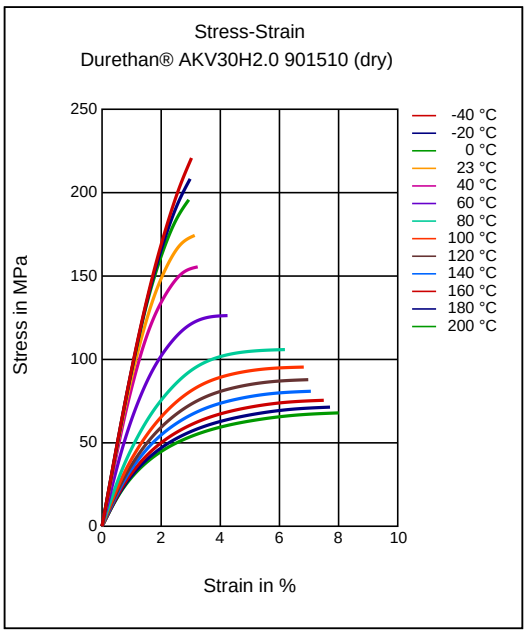
Viscosity-shear rate



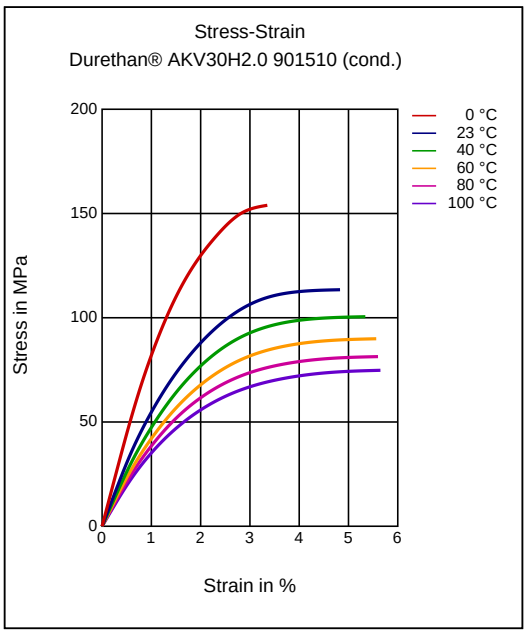
Shearstress-shear rate



Stress-strain



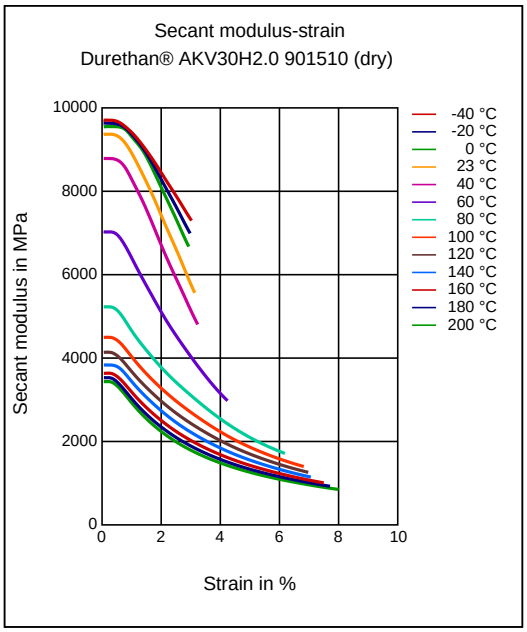
Stress-strain



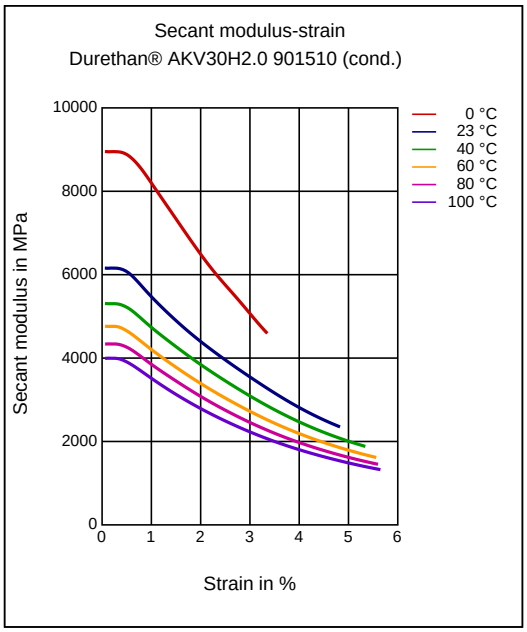
Durethan® AKV30H2.0 901510

PA66-GF30 Envalior

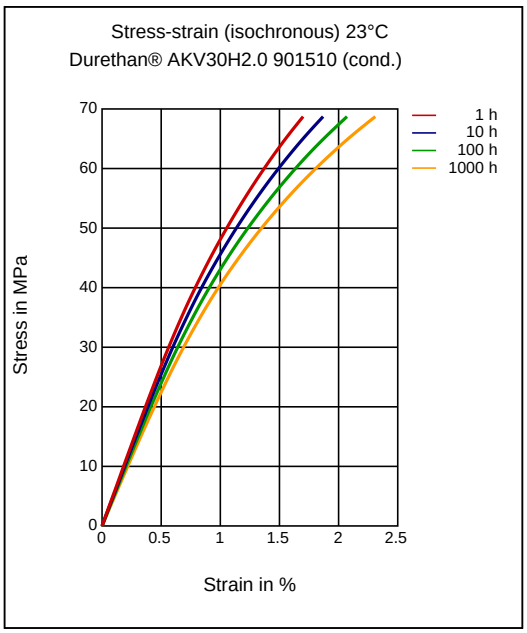
Secant modulus-strain



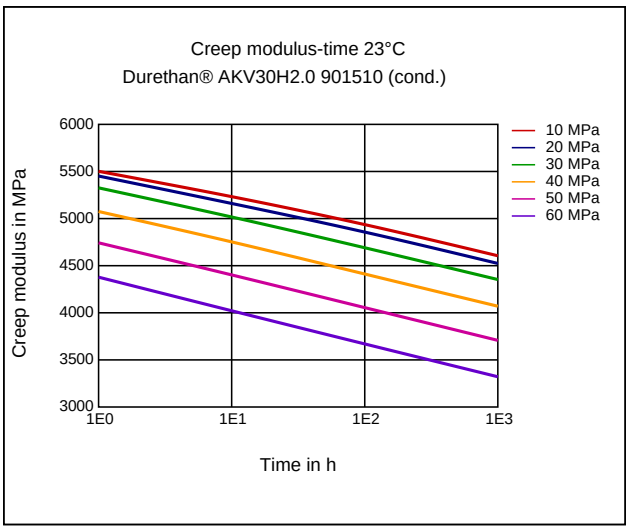
Secant modulus-strain



Stress-strain (isochronous) 23 °C



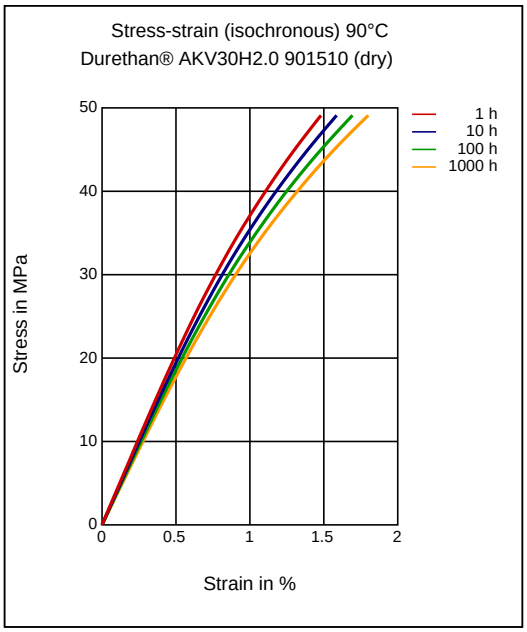
Creep modulus-time 23 °C



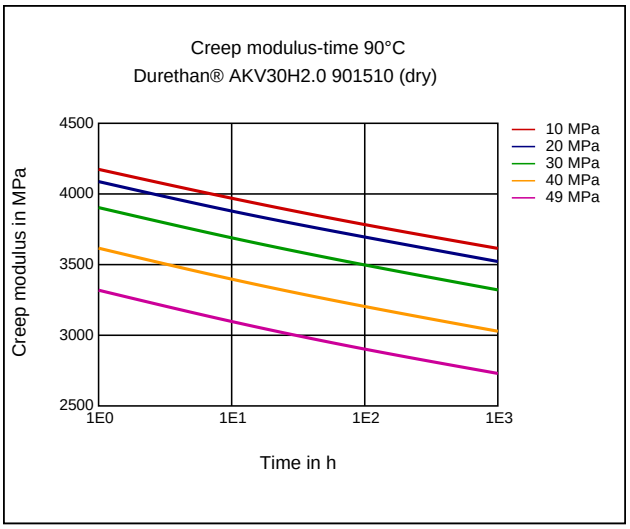
Durethan® AKV30H2.0 901510

PA66-GF30 Envalior

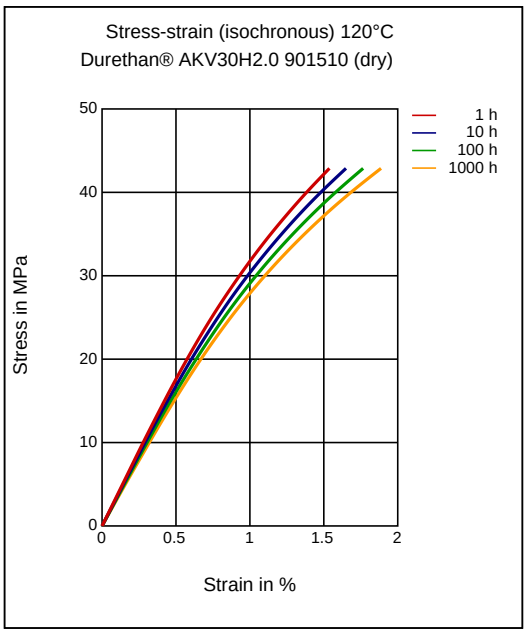
Stress-strain (isochronous) 90 °C



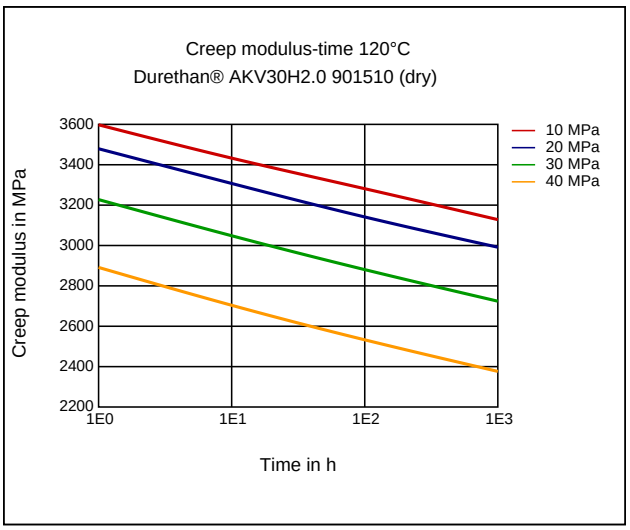
Creep modulus-time 90 °C



Stress-strain (isochronous) 120 °C



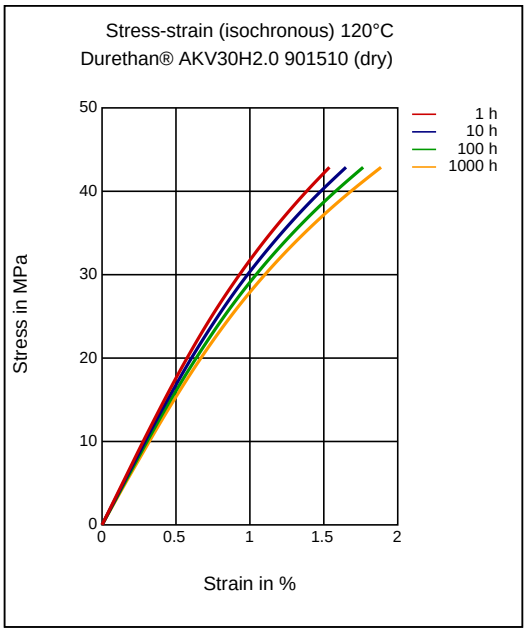
Creep modulus-time 120 °C



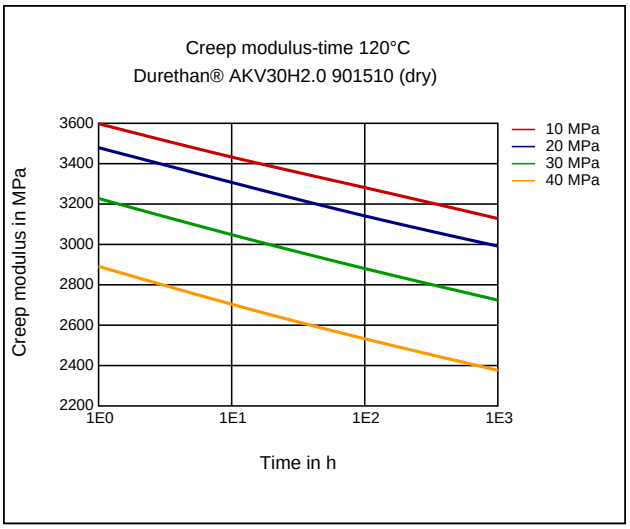
Durethan® AKV30H2.0 901510

PA66-GF30 Envalior

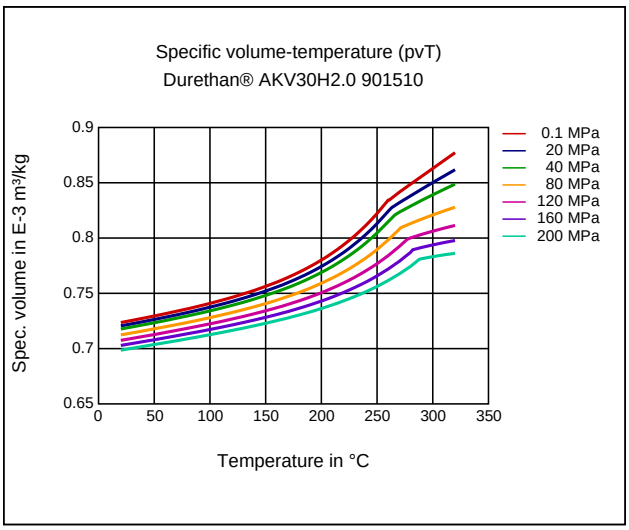
Stress-strain (isochronous) 120 °C



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): 280 - 300 °C
Mold temperature: 80 - 120 °C