

TECHNICAL DATA SHEET

Akulon® K224-HG0

Envalior
PA6-GF50

Processing

Injection molding

Delivery Form

Pellets

Special Characteristics

Heat stabilized or stable to heat

Product Text

Product Information

50% Glass Reinforced, Heat Stabilized

ISO 1043 PA6-GF50

Processing/Physical Characteristics	Value	Unit	Standard
Molding shrinkage, parallel	0.3	%	ISO 294-4, 2577
Molding shrinkage, normal	1.2	%	ISO 294-4, 2577
Density of melt	1376	kg/m ³	
Thermal conductivity of melt	0.37	W/(m K)	
Spec. heat capacity of melt	1900	J/(kg K)	
Eff. thermal diffusivity	1.41E-7	m ² /s	
Mechanical Properties	Value	Unit	Standard
Tensile modulus	16000	MPa	ISO 527
Stress at break	230	MPa	ISO 527
Strain at break	3	%	ISO 527
Poisson's ratio	0.35		ISO 527
Charpy impact strength, +23°C	100	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	85	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C	22	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	15	kJ/m ²	ISO 179/1eA
Thermal Properties	Value	Unit	Standard
Melting temperature, 10°C/min	220	°C	ISO 11357-1/-3

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Thermal Properties	Value	Unit	Standard
Temp. of deflection under load, 1.80 MPa	210	°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	10	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	50	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	
Yellow card available	yes		

Electrical Properties	Value	Unit	Standard
Relative permittivity, 100Hz	5.5		IEC 62631-2-1
Relative permittivity, 1MHz	4.5		IEC 62631-2-1
Dissipation factor, 100Hz	360	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	270	E-4	IEC 62631-2-1
Volume resistivity	1E13	Ohm*m	IEC 62631-3-1
Surface resistivity	1E14	Ohm	IEC 62631-3-2
Electric strength	35	kV/mm	IEC 60243-1
Comparative tracking index	600		IEC 60112

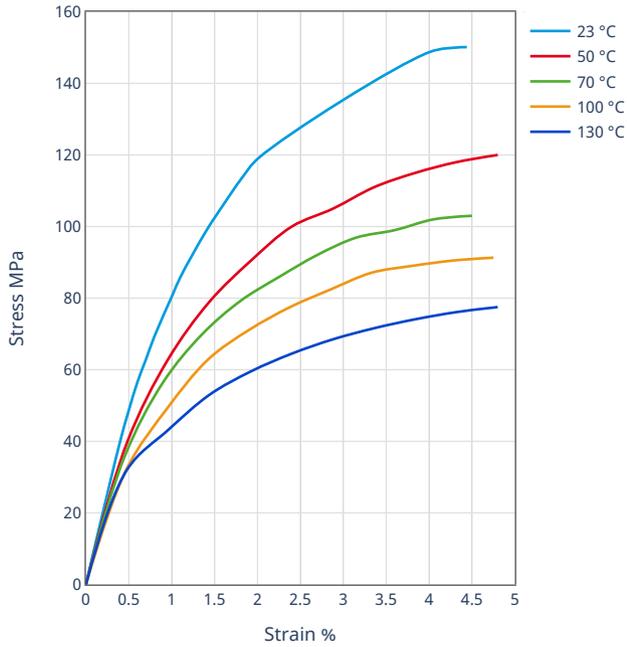
Other Properties	Value	Unit	Standard
Water absorption	4.5	%	Sim. to ISO 62
Humidity absorption	1.4	%	Sim. to ISO 62
Density	1560	kg/m ³	ISO 1183

Diagrams

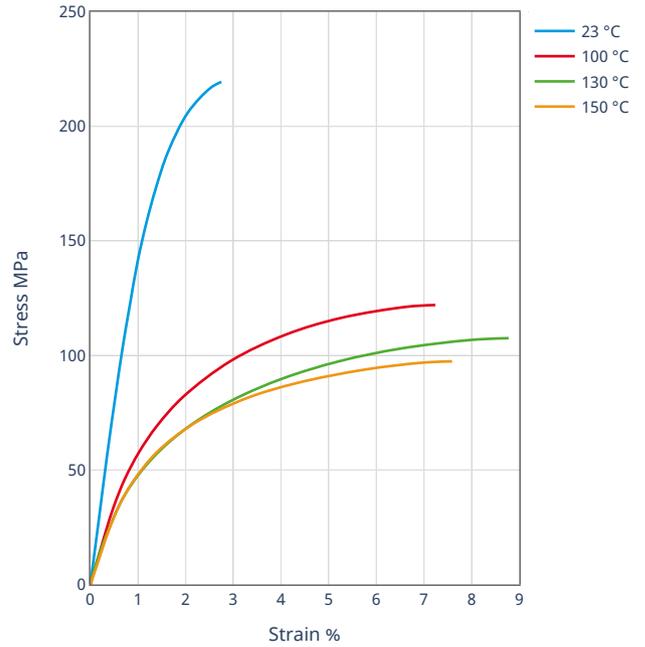
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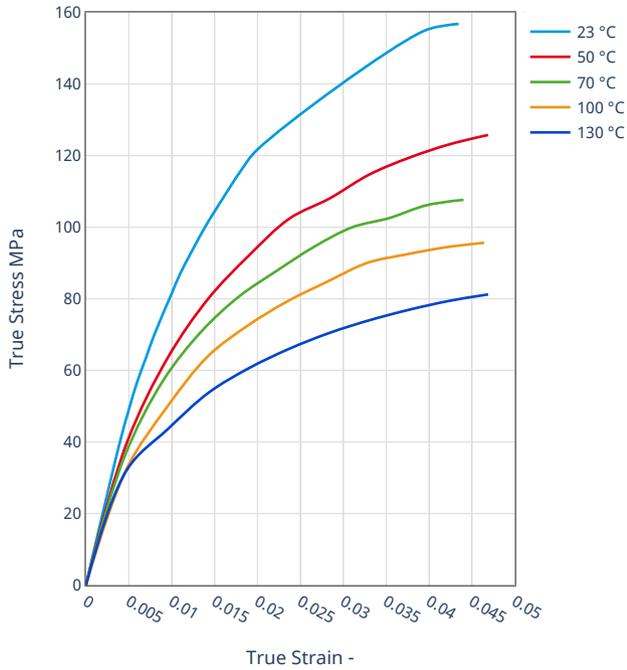
Stress-strain



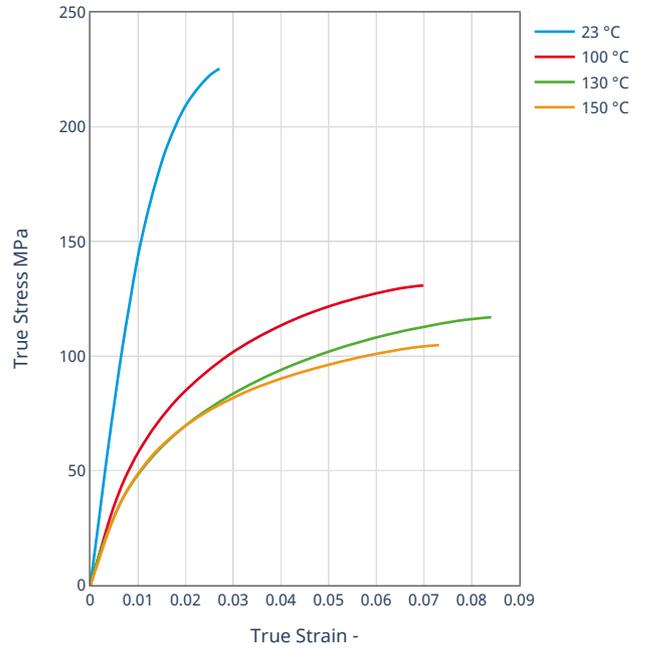
Stress-strain



True stress-true strain



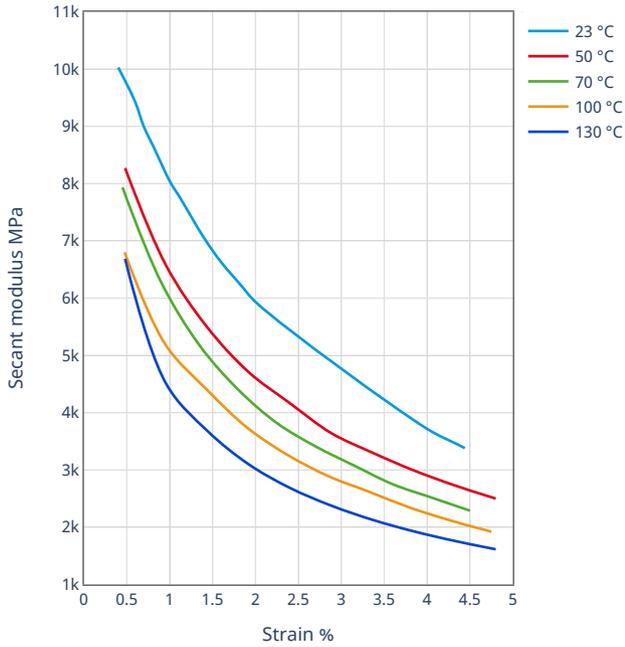
True stress-true strain



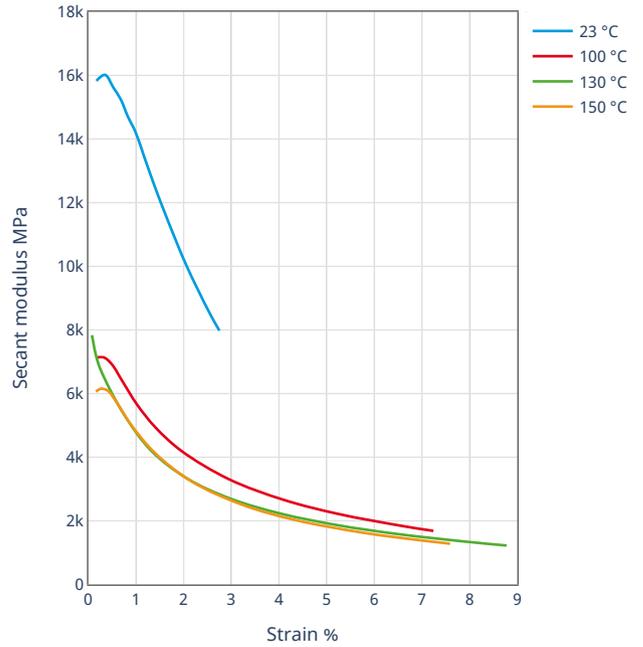
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Secant modulus-strain



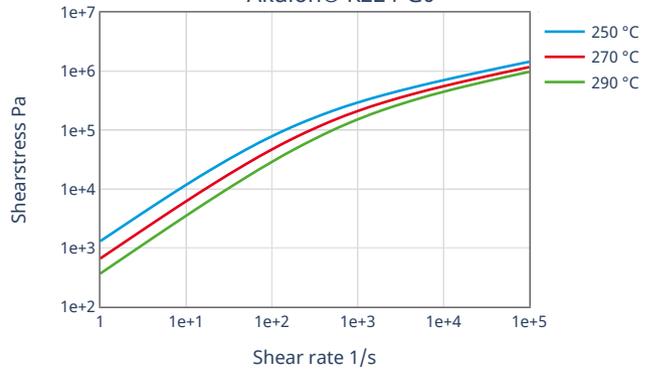
Secant modulus-strain



Viscosity-shear rate
->Akulon® K224-G0

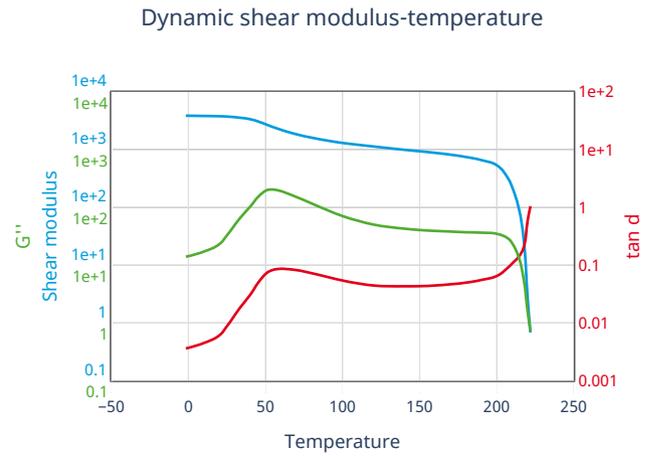
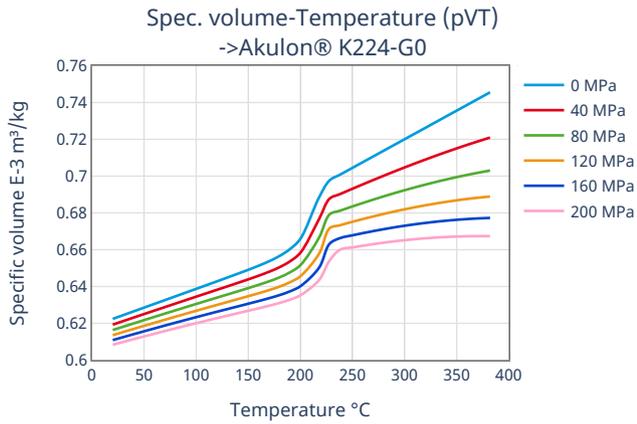


Shearstress-shear rate
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Processing Information

Injection molding

Injection Molding Recommendations

Steel recommendations for molds screws and barrels

Trouble shooting guideline for injection molding