

TECHNICAL DATA SHEET

Akulon® K223-HGM24

Envalior
PA6-(GF+MD)30

Processing

Injection molding

Delivery Form

Pellets

Additives

Release agent

Special Characteristics

Heat stabilized or stable to heat

Product Text

Product Information

10% Glass Reinforced, 20% Mineral Reinforced, Heat Stabilized

ISO 1043 PA6-(GF+MD)30

Processing/Physical Characteristics	Value	Unit	Standard
Molding shrinkage, parallel	0.3	%	ISO 294-4, 2577
Molding shrinkage, normal	0.9	%	ISO 294-4, 2577
Density of melt	976	kg/m ³	
Thermal conductivity of melt	0.31	W/(m K)	
Spec. heat capacity of melt	2180	J/(kg K)	
Eff. thermal diffusivity	1.46E-7	m ² /s	

Mechanical Properties	Value	Unit	Standard
Tensile modulus	7500	MPa	ISO 527
Stress at break	110	MPa	ISO 527
Strain at break	2.5	%	ISO 527
Poisson's ratio	0.35		ISO 527
Charpy impact strength, +23°C	40	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	35	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C	3.8	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	5	kJ/m ²	ISO 179/1eA

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Thermal Properties	Value	Unit	Standard
Melting temperature, 10°C/min	220	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.80 MPa	185	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	210	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	35	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	60	E-6/K	ISO 11359-1/-2
Burning behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	3	mm	
Yellow card available	yes		

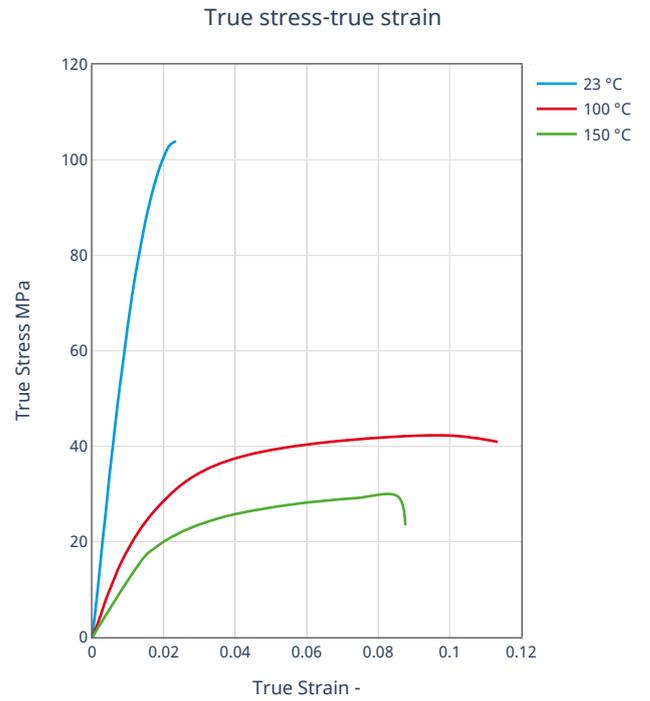
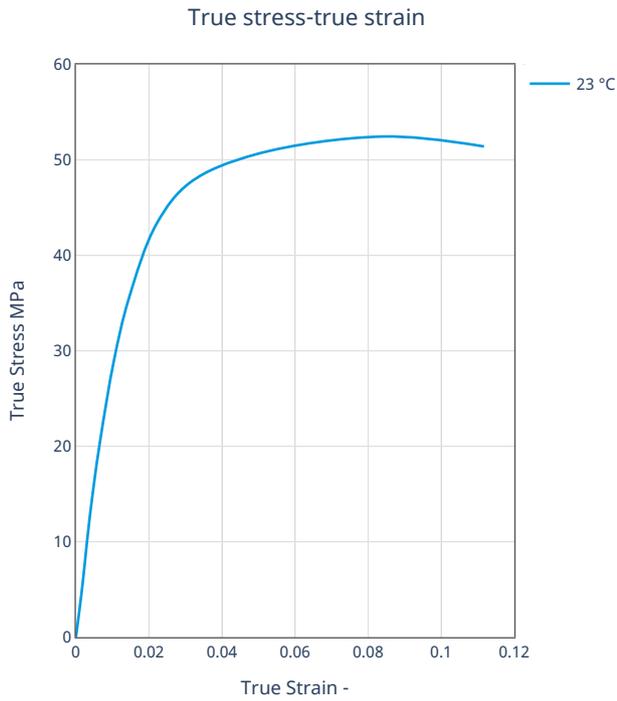
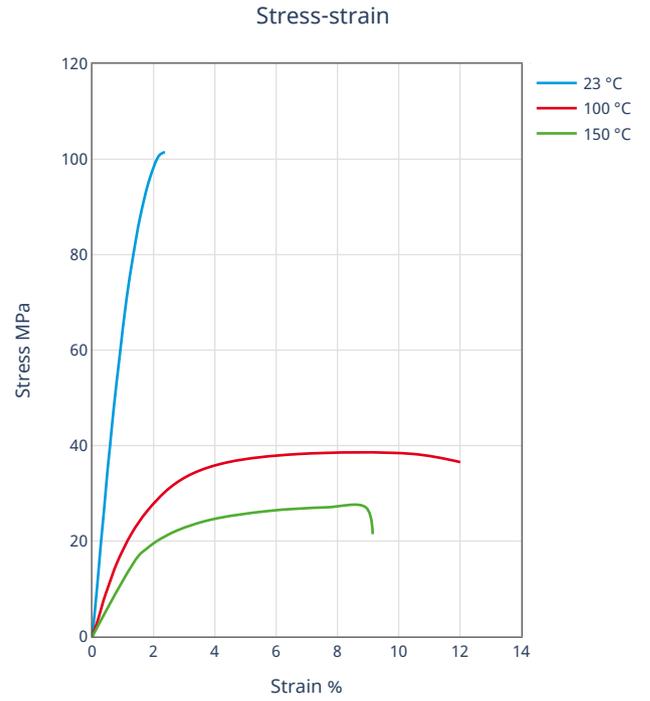
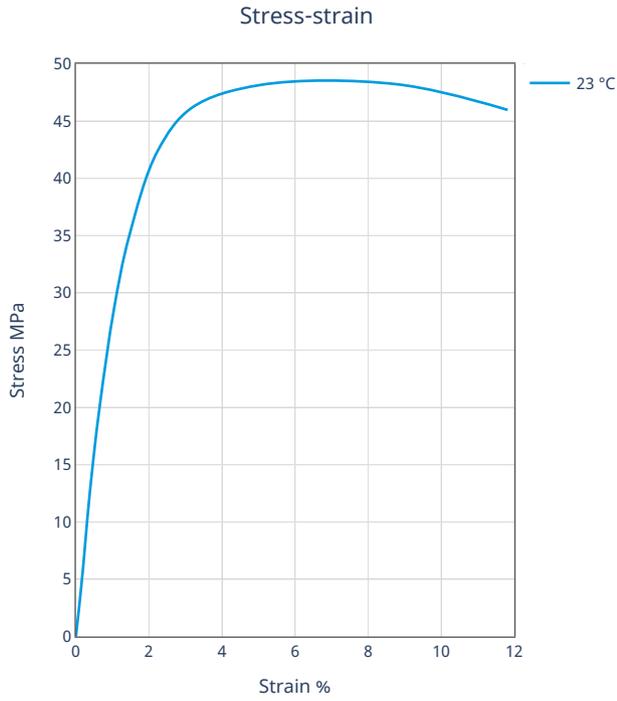
Electrical Properties	Value	Unit	Standard
Relative permittivity, 100Hz	3.5		IEC 62631-2-1
Relative permittivity, 1MHz	3.3		IEC 62631-2-1
Dissipation factor, 100Hz	50	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	140	E-4	IEC 62631-2-1
Volume resistivity	1E12	Ohm*m	IEC 62631-3-1
Surface resistivity	1E13	Ohm	IEC 62631-3-2
Electric strength	35	kV/mm	IEC 60243-1
Comparative tracking index	500		IEC 60112

Other Properties	Value	Unit	Standard
Water absorption	6.5	%	Sim. to ISO 62
Humidity absorption	1.9	%	Sim. to ISO 62
Density	1370	kg/m ³	ISO 1183

Diagrams

Akulon® K223-HGM24

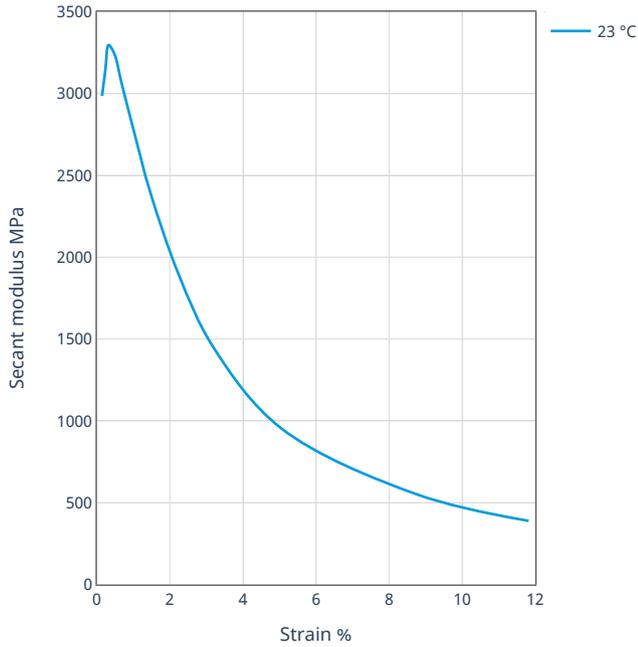
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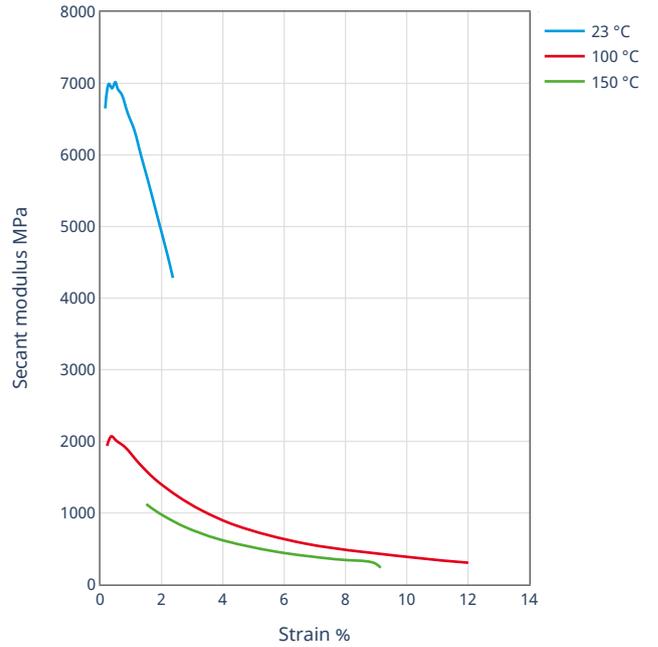
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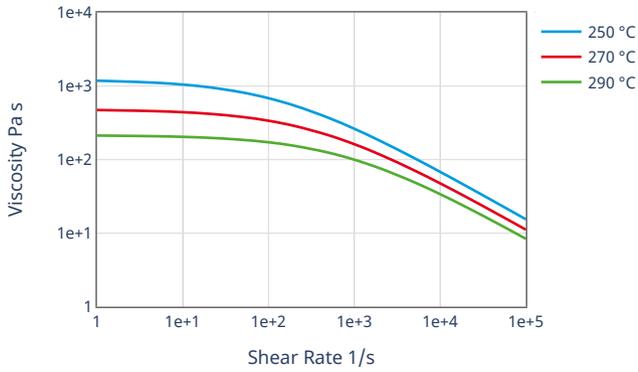
Secant modulus-strain



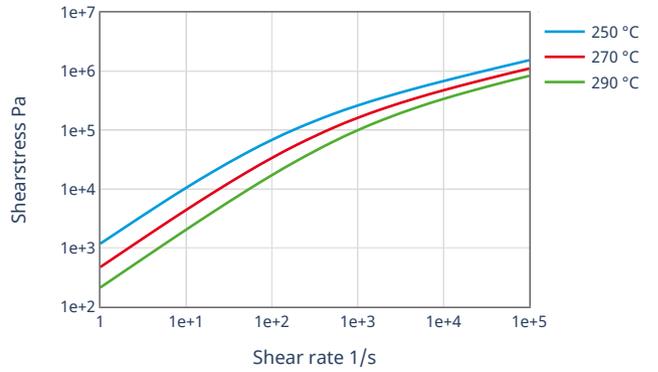
Secant modulus-strain



Viscosity-shear rate

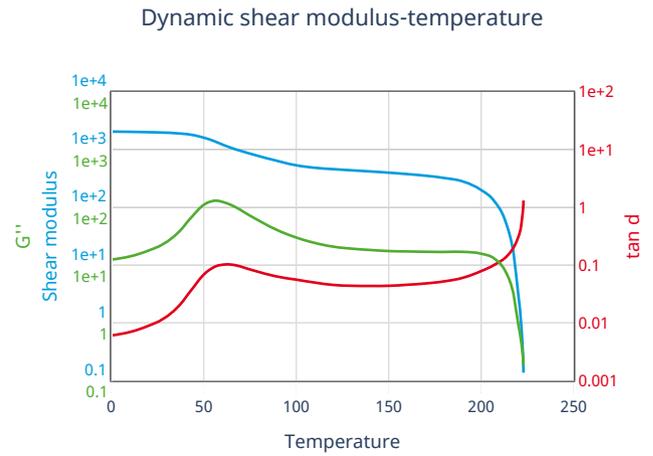
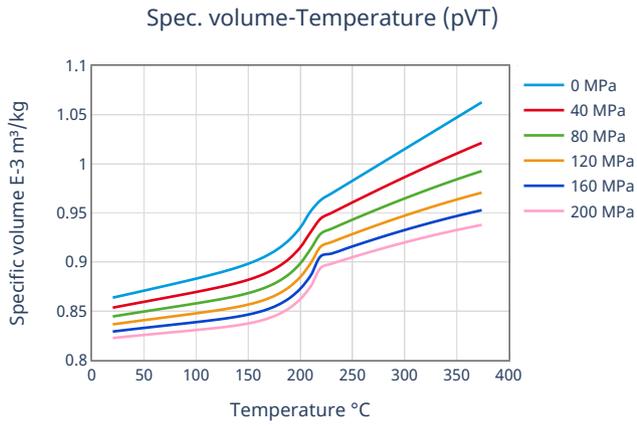


Shearstress-shear rate



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Processing Information

Injection molding

Injection Molding Recommendations

Steel recommendations for molds screws and barrels

Trouble shooting guideline for injection molding