

TECHNICAL DATA SHEET

Akulon® K225-KS

Envalior
PA6 FR(30)

Processing

Injection molding

Delivery Form

Pellets

Additives

Release agent

Special Characteristics

Flame retardant, Halogen-free, Heat stabilized or stable to heat

Product Text

Product Information

Flame Retardant (halogen free), Heat Stabilized

ISO 1043 PA6 FR(30)

Processing/Physical Characteristics	Value	Unit	Standard
Melt volume-flow rate, MVR	34.8	cm ³ /10min	ISO 1133
Temperature	250	°C	
Load	2.16	kg	
Molding shrinkage, parallel	1.1	%	ISO 294-4, 2577
Molding shrinkage, normal	0.91	%	ISO 294-4, 2577
Density of melt	898	kg/m ³	
Thermal conductivity of melt	0.28	W/(m K)	
Spec. heat capacity of melt	2530	J/(kg K)	
Eff. thermal diffusivity	1.22E-7	m ² /s	
Mechanical Properties	Value	Unit	Standard
Tensile modulus	3800	MPa	ISO 527
Yield stress	80	MPa	ISO 527
Yield strain	3.5	%	ISO 527
Nominal strain at break	6	%	ISO 527
Poisson's ratio	0.35		ISO 527
Charpy impact strength, +23°C	95	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	90	kJ/m ²	ISO 179/1eU

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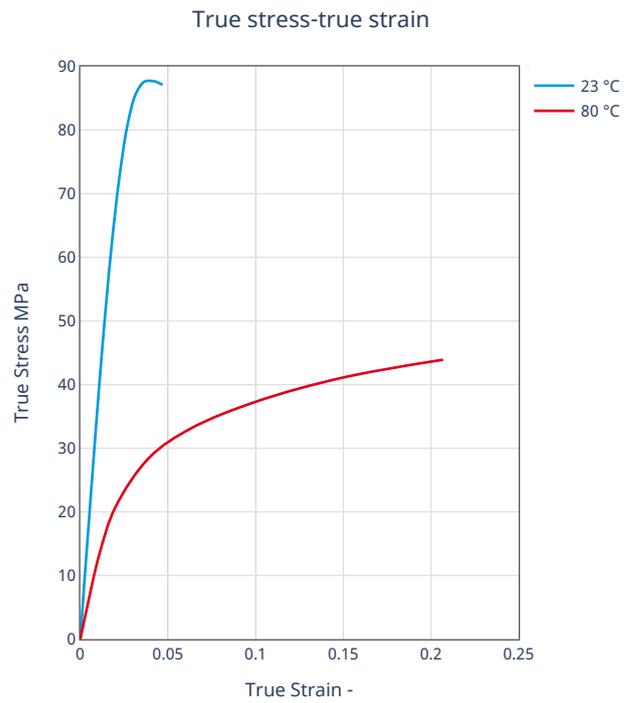
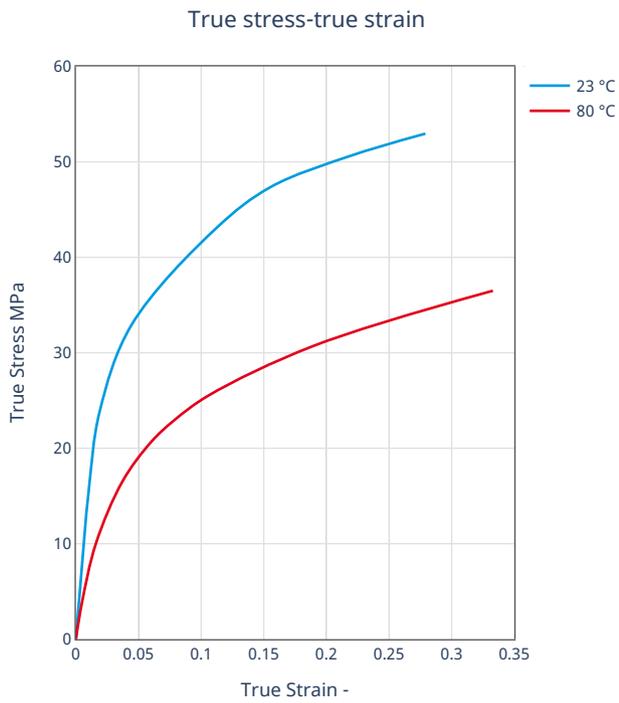
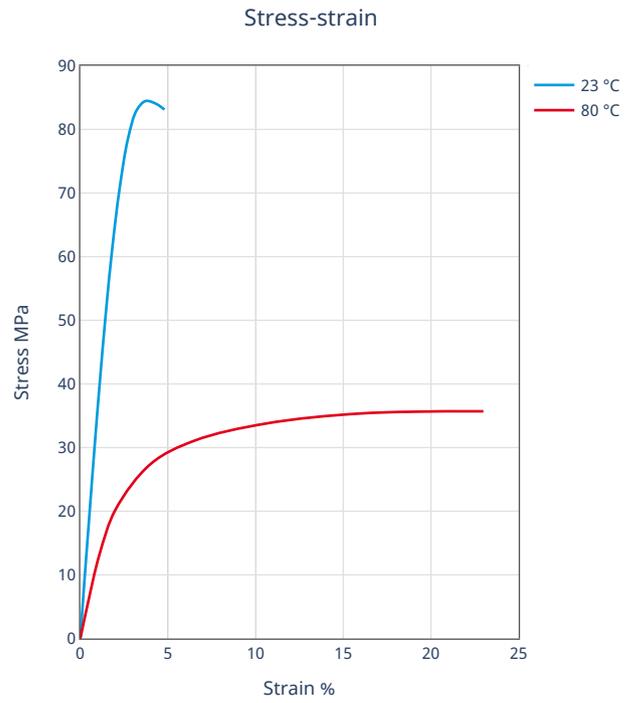
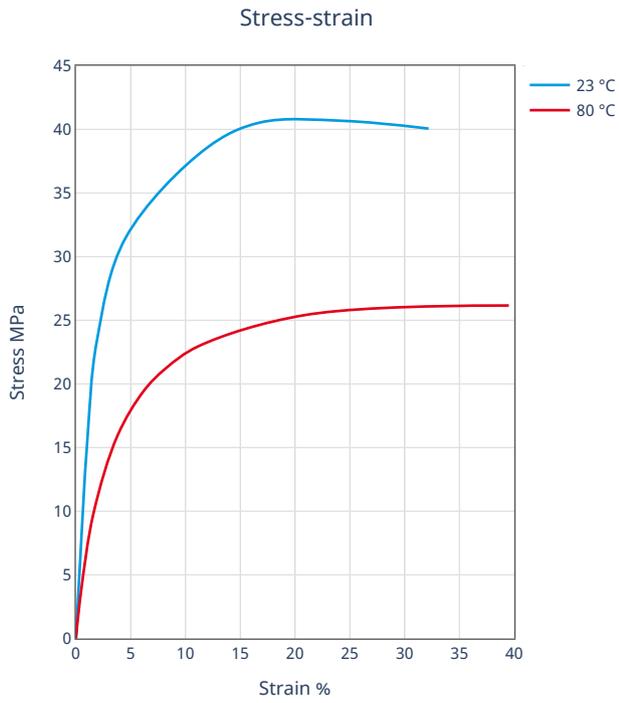
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Mechanical Properties	Value	Unit	Standard
Charpy notched impact strength, +23°C	5	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	3	kJ/m ²	ISO 179/1eA
Thermal Properties	Value	Unit	Standard
Melting temperature, 10°C/min	220	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.80 MPa	75	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	180	°C	ISO 75-1/-2
Vicat softening temperature, B	204	°C	ISO 306
Coeff. of linear therm. expansion, parallel	90	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.	V-0	class	IEC 60695-11-10
Thickness tested	1.5	mm	
Yellow card available	yes		
Burning behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	3	mm	
Yellow card available	yes		
Oxygen index	40	%	ISO 4589-1/-2
Electrical Properties	Value	Unit	Standard
Relative permittivity, 100Hz	3.3		IEC 62631-2-1
Relative permittivity, 1MHz	3.2		IEC 62631-2-1
Dissipation factor, 100Hz	90	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	200	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	30	kV/mm	IEC 60243-1
Comparative tracking index	600		IEC 60112
Other Properties	Value	Unit	Standard
Water absorption	9	%	Sim. to ISO 62
Humidity absorption	2.5	%	Sim. to ISO 62
Density	1180	kg/m ³	ISO 1183

Diagrams

Akulon® K225-KS

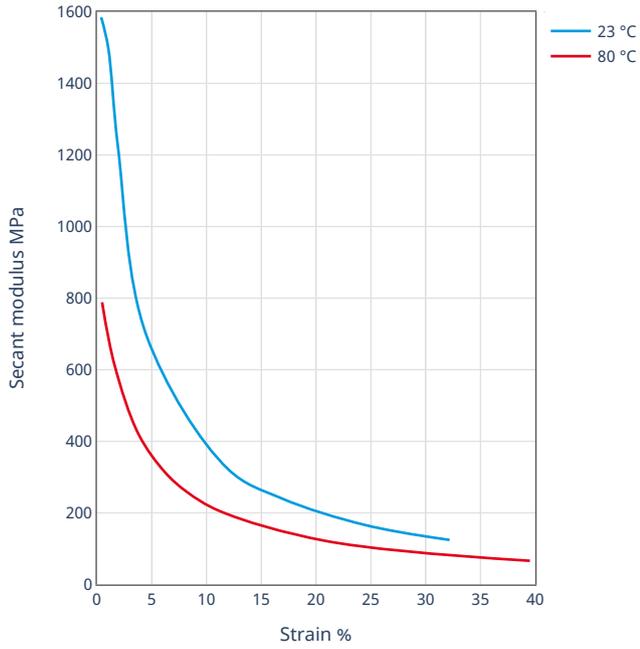
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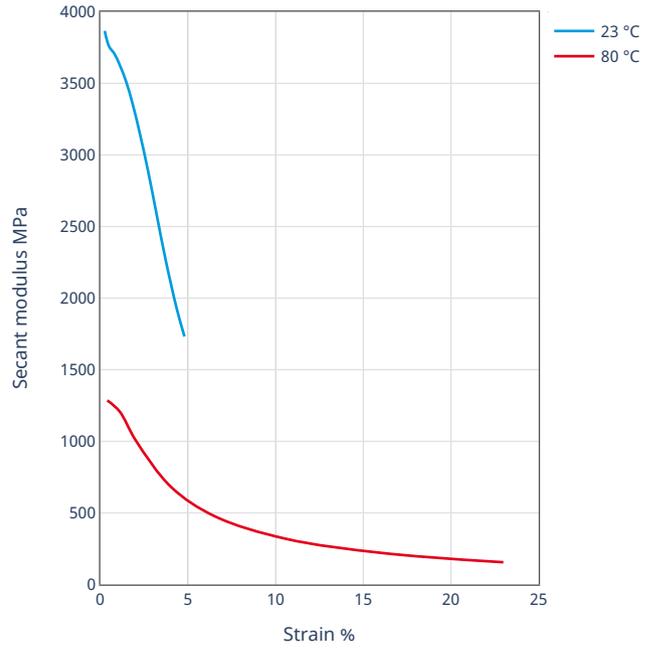
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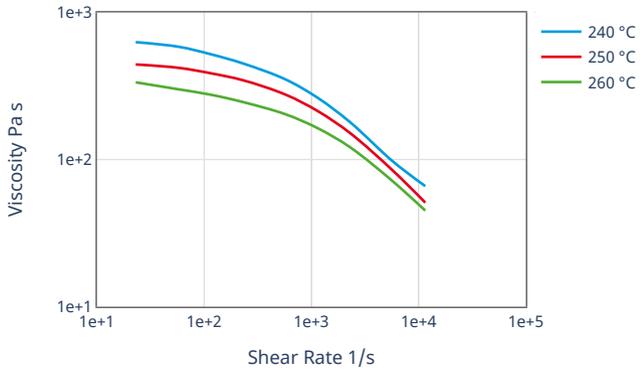
Secant modulus-strain



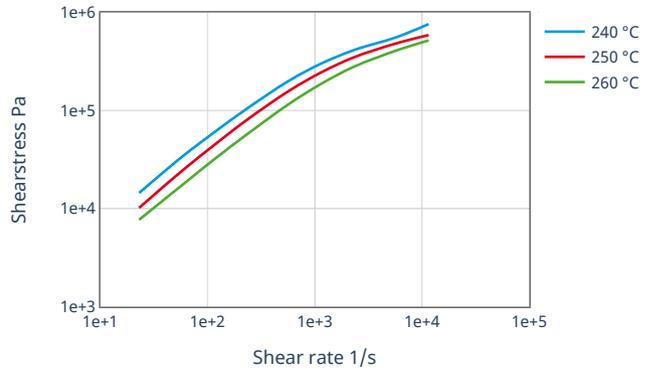
Secant modulus-strain



Viscosity-shear rate

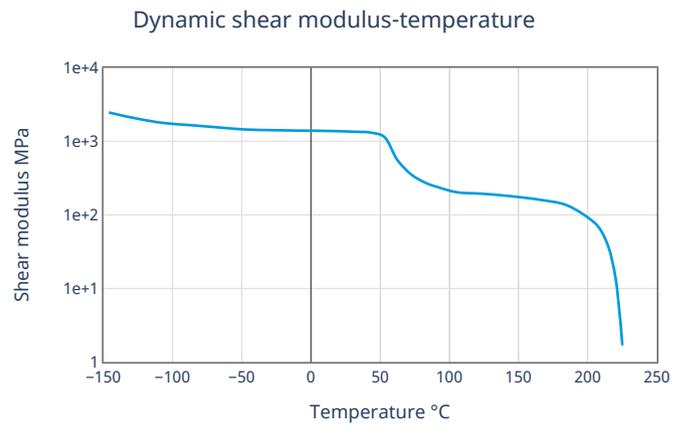
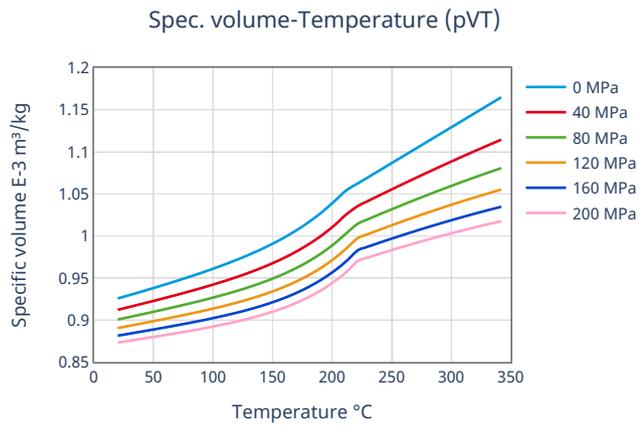


Shearstress-shear rate



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Processing Information

Injection molding

Injection Molding Recommendations

Steel recommendations for molds screws and barrels

Trouble shooting guideline for injection molding