

TECHNICAL DATA SHEET

# Akulon® K222-KGV4

Envalior  
PA6-GF20 FR(30)

**Processing**

Injection molding

**Delivery Form**

Pellets

**Additives**

Release agent

**Special Characteristics**

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

## Product Text

**Product Information**

20% Glass Reinforced, Heat Stabilized, Flame Retardant (halogen- phosphorous-free)

ISO 1043 PA6-GF20 FR(30)

Processing/Physical Characteristics	Value	Unit	Standard
Molding shrinkage, parallel	0.6	%	ISO 294-4, 2577
Molding shrinkage, normal	1	%	ISO 294-4, 2577
Density of melt	1027	kg/m <sup>3</sup>	
Thermal conductivity of melt	0.29	W/(m K)	
Spec. heat capacity of melt	2270	J/(kg K)	
Eff. thermal diffusivity	1.25E-7	m <sup>2</sup> /s	

Mechanical Properties	Value	Unit	Standard
Tensile modulus	6000	MPa	ISO 527
Stress at break	85	MPa	ISO 527
Strain at break	3.6	%	ISO 527
Poisson's ratio	0.35		ISO 527
Charpy impact strength, +23°C	45	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C	35	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, +23°C	3.5	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30°C	3	kJ/m <sup>2</sup>	ISO 179/1eA

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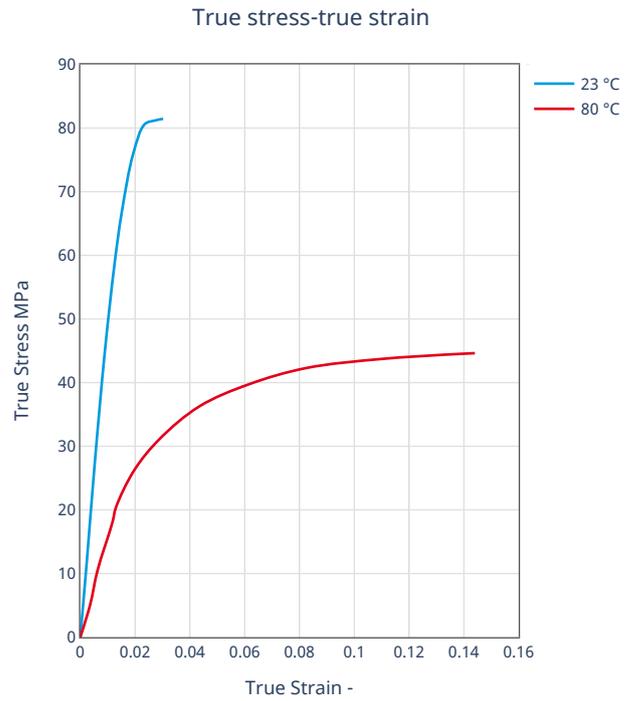
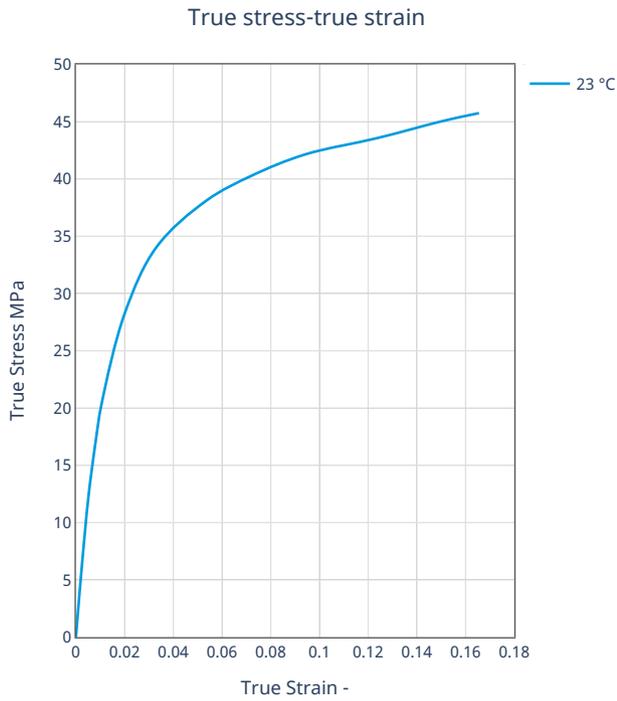
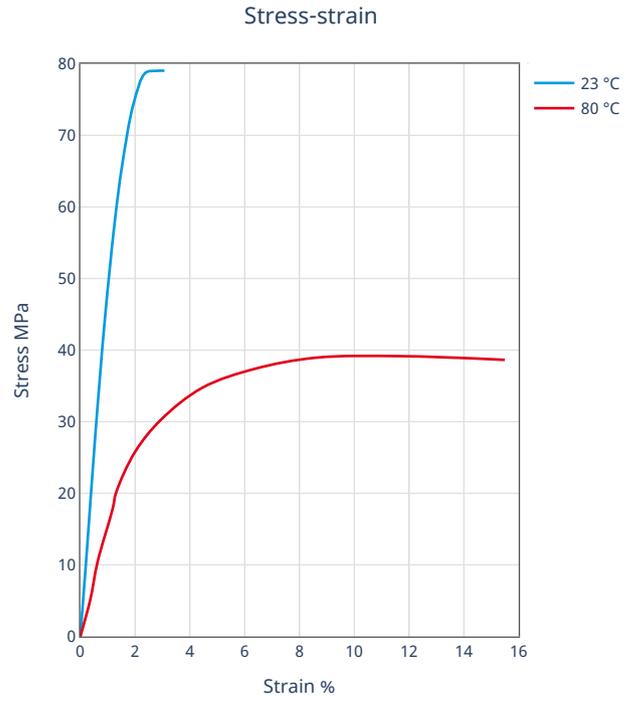
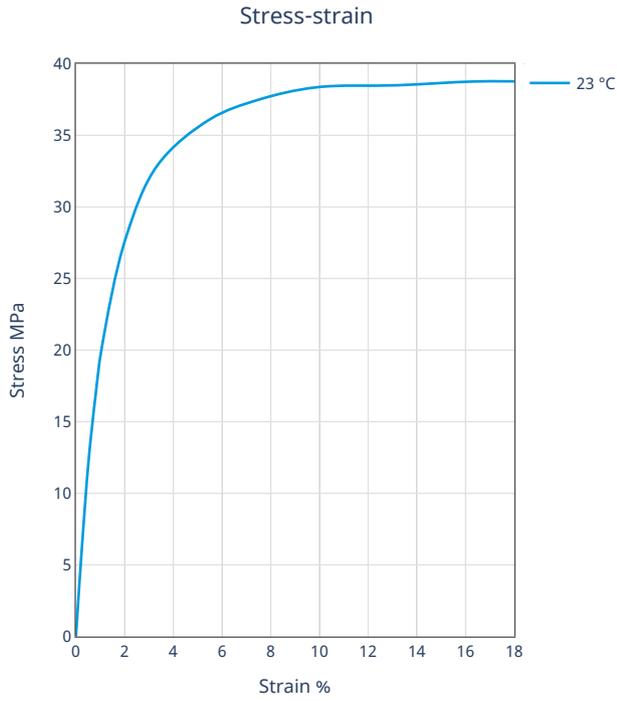
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Thermal Properties	Value	Unit	Standard
Melting temperature, 10°C/min	220	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.80 MPa	140	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	210	°C	ISO 75-1/-2
Burning behav. at 1.5 mm nom. thickn.	V-2	class	IEC 60695-11-10
Thickness tested	1.5	mm	
Yellow card available	yes		
Burning behav. at thickness h	V-2	class	IEC 60695-11-10
Thickness tested	3	mm	
Yellow card available	yes		
Electrical Properties	Value	Unit	Standard
Relative permittivity, 100Hz	4.3		IEC 62631-2-1
Relative permittivity, 1MHz	3.8		IEC 62631-2-1
Dissipation factor, 100Hz	130	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	210	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	575		IEC 60112
Other Properties	Value	Unit	Standard
Water absorption	6.5	%	Sim. to ISO 62
Humidity absorption	2	%	Sim. to ISO 62
Density	1340	kg/m <sup>3</sup>	ISO 1183

## Diagrams

# Akulon® K222-KGV4

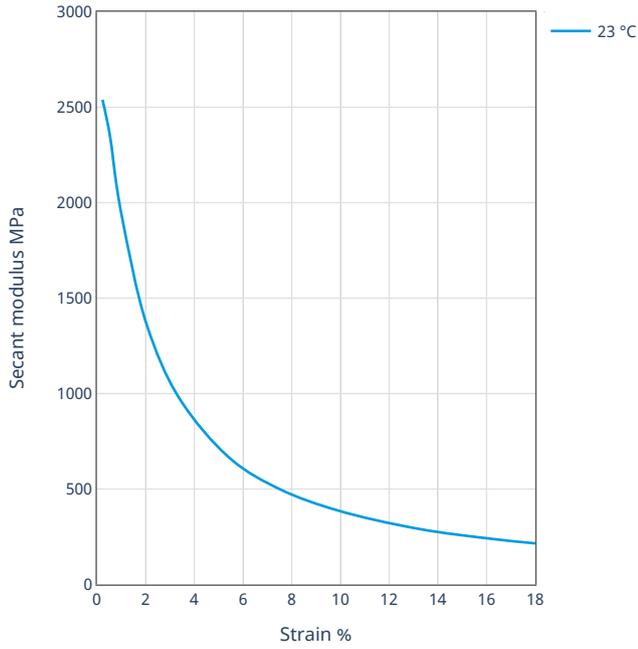
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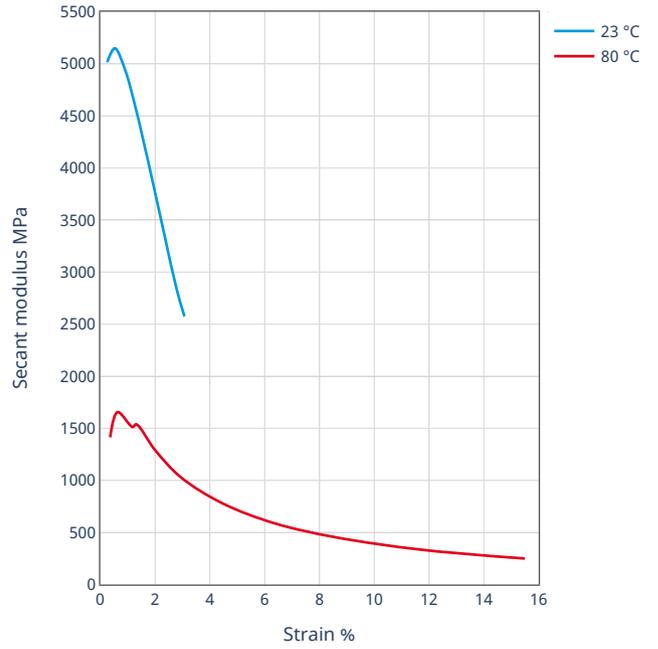
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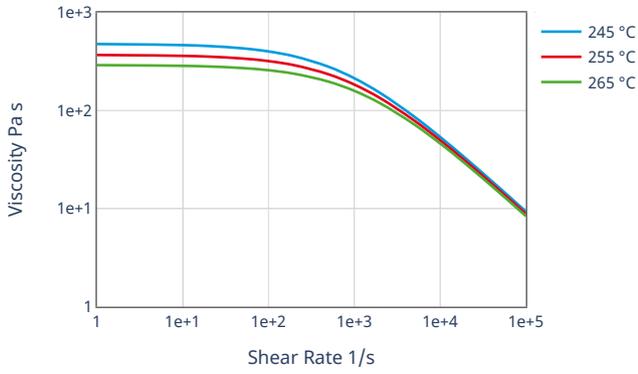
Secant modulus-strain



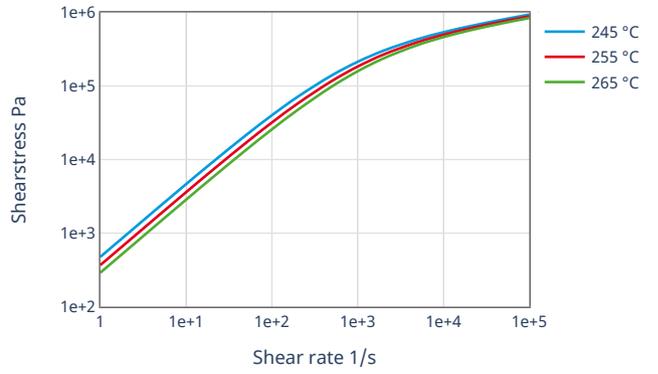
Secant modulus-strain



Viscosity-shear rate

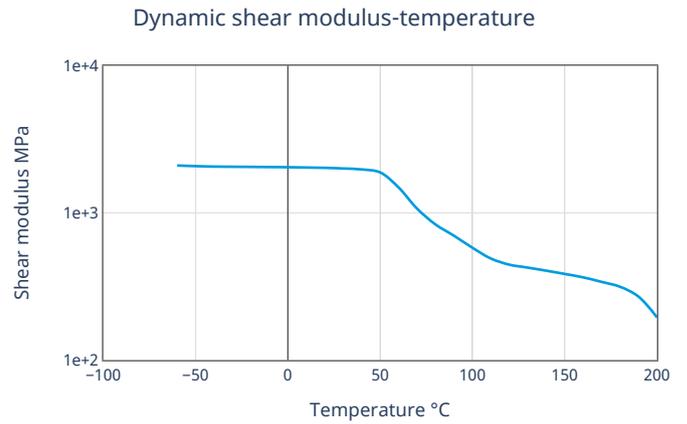
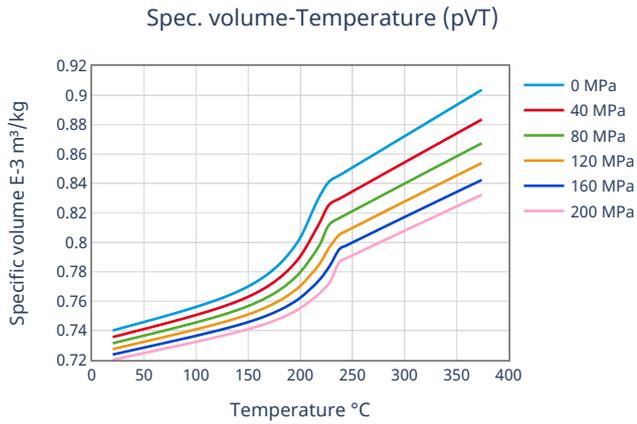


Shearstress-shear rate



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## Processing Information

### Injection molding

Injection Molding Recommendations

Steel recommendations for molds screws and barrels

Trouble shooting guideline for injection molding