

TECHNICAL DATA SHEET

# Akulon® K224-PG6 B-MB

Envalior  
PA6-I-GF30

**Processing**

Injection molding

Pellets

**Special Characteristics**

High impact or impact modified

**Delivery Form**

## Product Text

**Product Information**

30% Glass Reinforced, Impact Modified

ISO 1043 PA6-I-GF30

Processing/Physical Characteristics	dry/cond	Unit	Standard
Melt volume-flow rate, MVR	20 / -	cm <sup>3</sup> /10min	ISO 1133
Temperature	275 / -	°C	
Load	5 / -	kg	
Molding shrinkage, parallel	0.39 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	1 / -	%	ISO 294-4, 2577
Density of melt	1109	kg/m <sup>3</sup>	
Thermal conductivity of melt	0.28	W/(m K)	
Spec. heat capacity of melt	2830	J/(kg K)	
Eff. thermal diffusivity	8.99E-8	m <sup>2</sup> /s	
Mechanical Properties	dry/cond	Unit	Standard
Tensile modulus	8700 / 4750	MPa	ISO 527
Stress at break	150 / 105	MPa	ISO 527
Strain at break	5 / 10	%	ISO 527
Poisson's ratio	0.35 / 0.35		ISO 527
Charpy impact strength, +23°C	95 / 110	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C	100 / 100	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, +23°C	23 / 43	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30°C	15 / 15	kJ/m <sup>2</sup>	ISO 179/1eA

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Thermal Properties	dry/cond	Unit	Standard
Temp. of deflection under load, 1.80 MPa	200 / -	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	215 / -	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	20 / -	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	90 / -	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	dry/cond	Unit	Standard
Relative permittivity, 100Hz	3.8 / 14		IEC 62631-2-1
Relative permittivity, 1MHz	3.5 / 4.5		IEC 62631-2-1
Dissipation factor, 100Hz	90 / 3000	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	150 / 1200	E-4	IEC 62631-2-1
Volume resistivity	1E13 / 1E11	Ohm*m	IEC 62631-3-1
Surface resistivity	- / 1E14	Ohm	IEC 62631-3-2
Electric strength	30 / 25	kV/mm	IEC 60243-1
Comparative tracking index	- / 600		IEC 60112

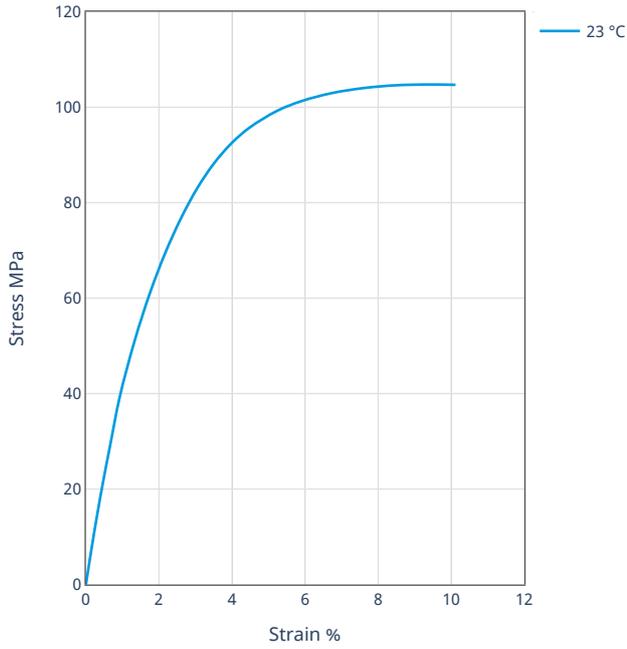
Other Properties	dry/cond	Unit	Standard
Water absorption	5.7 / -	%	Sim. to ISO 62
Humidity absorption	1.7 / -	%	Sim. to ISO 62
Density	1320 / -	kg/m <sup>3</sup>	ISO 1183

## Diagrams

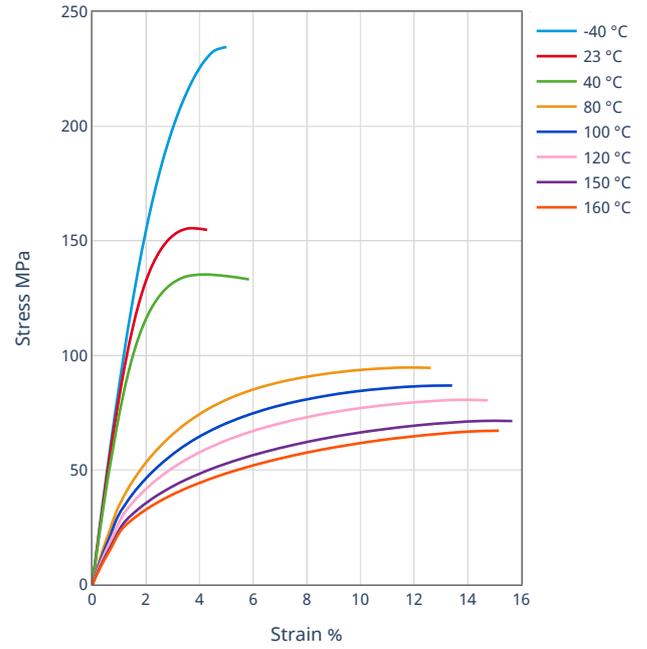
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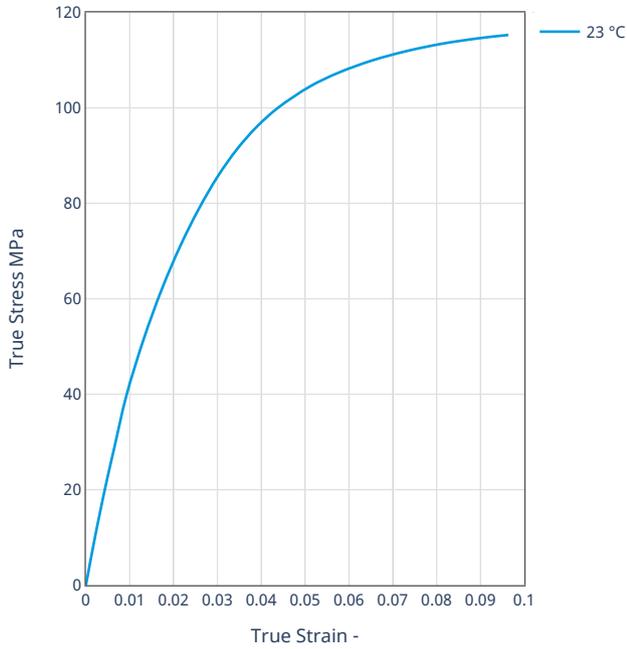
Stress-strain (cond)



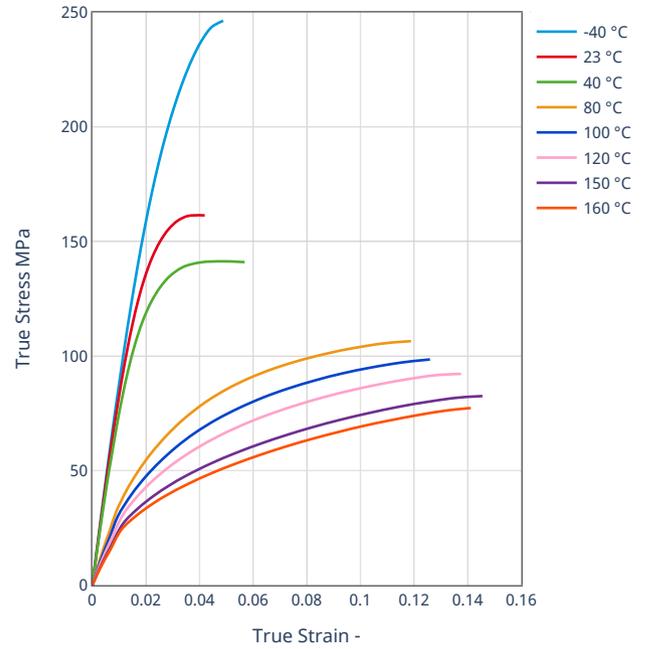
Stress-strain (dry)



True stress-true strain (cond)



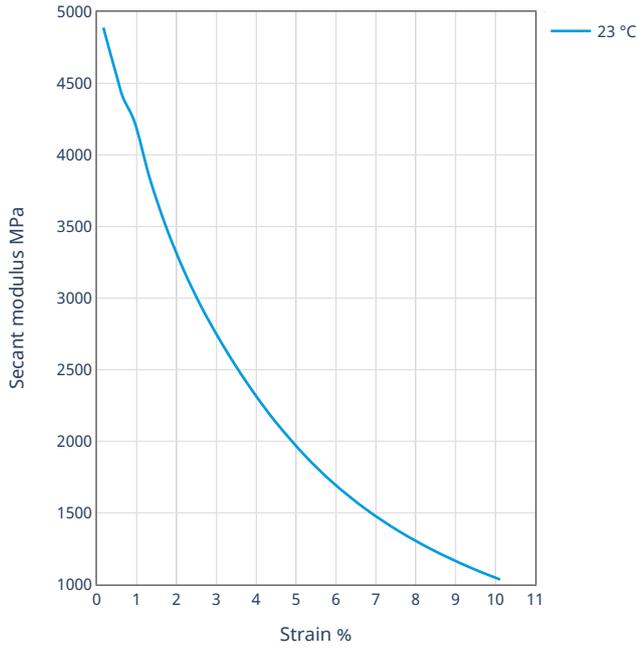
True stress-true strain (dry)



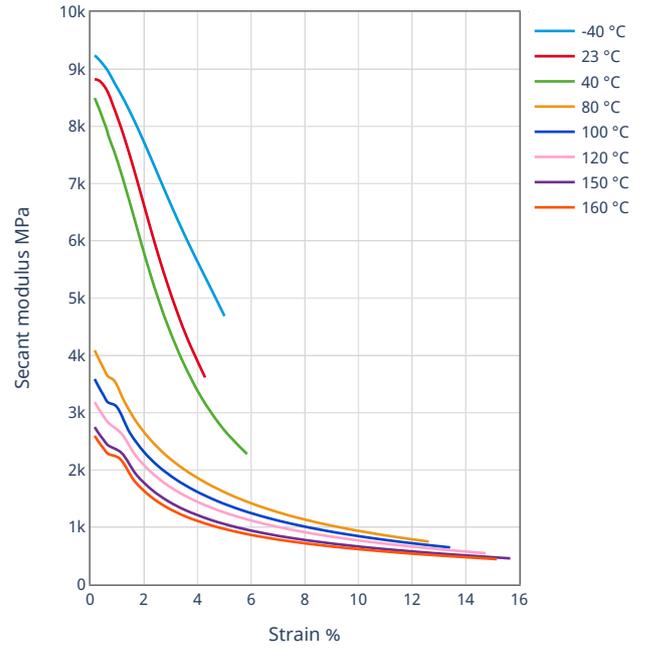
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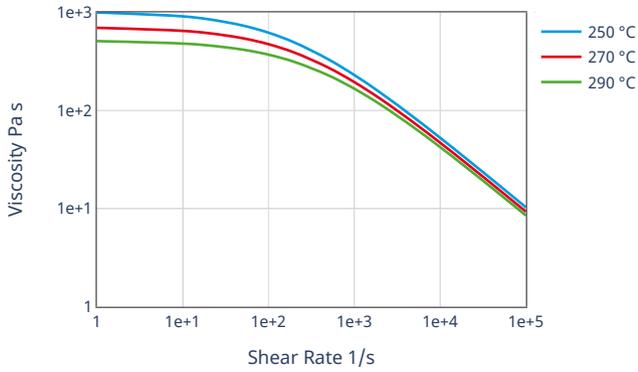
Secant modulus-strain (cond)



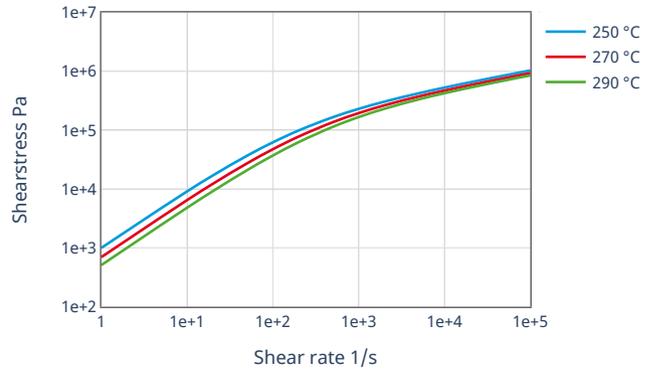
Secant modulus-strain (dry)



Viscosity-shear rate



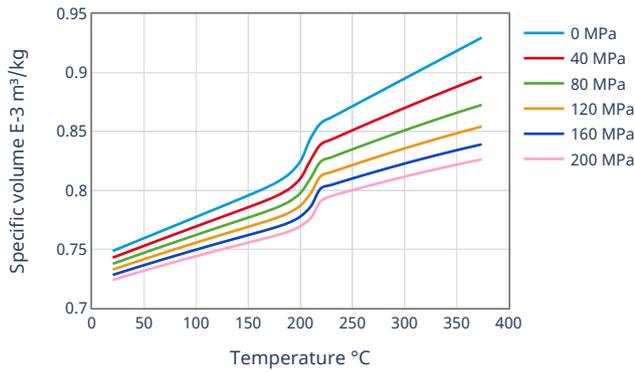
Shearstress-shear rate



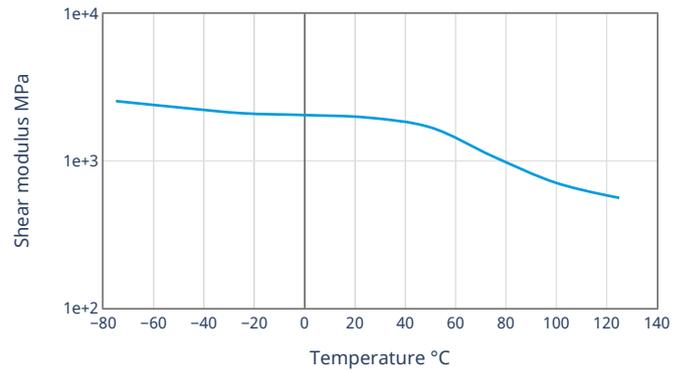
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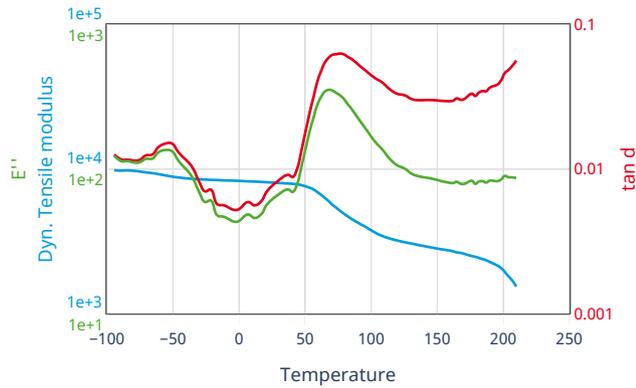
Spec. volume-Temperature (pVT)



Dynamic shear modulus-temperature (dry)



Dynamic tensile modulus-temperature (dry)



## Processing Information

### Injection molding

Injection Molding Recommendations

Steel recommendations for molds screws and barrels

Trouble shooting guideline for injection molding