


Akulon® K224-G6

PA6-GF30

DSM Engineering Plastics

Product Texts

30% Glass Reinforced

ISO 1043 PA6-GF30

[Akulon website](#)

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	6.4 / *	cm³/10min	ISO 1133
Temperature	240 / *	°C	ISO 1133
Load	2.16 / *	kg	ISO 1133
Molding shrinkage, parallel	0.3 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.9 / *	%	ISO 294-4, 2577
Mechanical properties			
ISO Data			
Tensile Modulus	9500 / 6000	MPa	ISO 527-1/-2
Stress at break	180 / 110	MPa	ISO 527-1/-2
Strain at break	3.5 / 7	%	ISO 527-1/-2
Charpy impact strength (+23°C)	90 / 110	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	75 / 75	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	12 / 25	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	11 / 11	kJ/m²	ISO 179/1eA
Shore D hardness, 15s	85 / -	-	ISO 868
Thermal properties			
ISO Data			
Melting temperature (10°C/min)	220 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	200 / *	°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	20 / *	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	70 / *	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	IEC 60695-11-10
UL recognition	UL / *	-	-
Burning behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	IEC 60695-11-10
UL recognition	UL / *	-	-
Electrical properties			
ISO Data			
Relative permittivity, 100Hz	3.5 / 20	-	IEC 60250
Relative permittivity, 1MHz	3.3 / 5	-	IEC 60250
Dissipation factor, 100Hz	50 / 3000	E-4	IEC 60250
Dissipation factor, 1MHz	150 / 1200	E-4	IEC 60250
Volume resistivity	1E13 / 1E11	Ohm*m	IEC 60093
Surface resistivity	* / 1E14	Ohm	IEC 60093
Electric strength	30 / 25	kV/mm	IEC 60243-1
Comparative tracking index	- / 600	-	IEC 60112
Other properties			
ISO Data			

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Water absorption	6.3 / *	%	Sim. to ISO 62
Humidity absorption	1.9 / *	%	Sim. to ISO 62
Density	1350 / -	kg/m ³	ISO 1183

Rheological calculation properties

Value

Unit

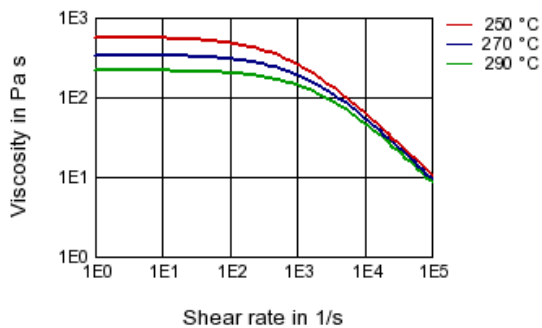
Test Standard

ISO Data

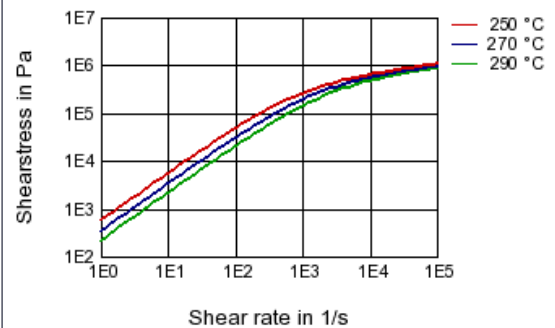
Density of melt	1150	kg/m ³	-
Thermal conductivity of melt	0.27	W/(m K)	-
Spec. heat capacity of melt	2110	J/(kg K)	-
Eff. thermal diffusivity	1.12E-7	m ² /s	-

Diagrams**Viscosity-shear rate**

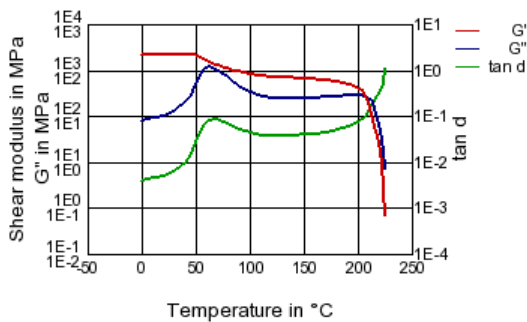
Viscosity-shear rate
Akulon® K224-G6 (->Akulon® K224-HG6)

**Shearstress-shear rate**

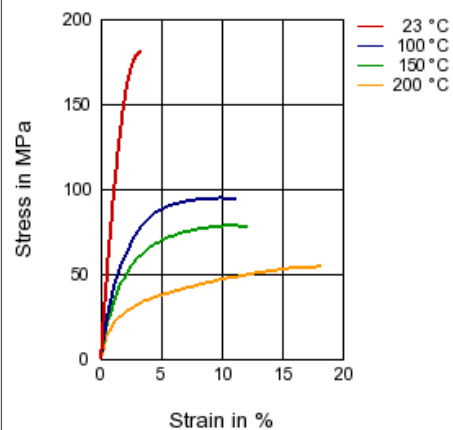
Shearstress-shear rate
Akulon® K224-G6 (->Akulon® K224-HG6)

**Dynamic Shear modulus-temperature**

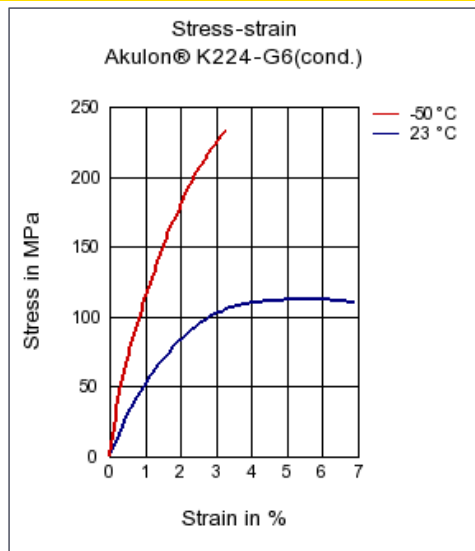
Dynamic Shear modulus-temperature
Akulon® K224-G6(dry)

**Stress-strain**

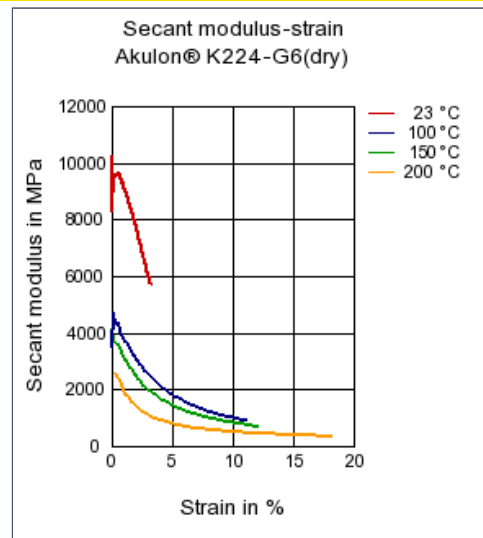
Stress-strain
Akulon® K224-G6(dry)



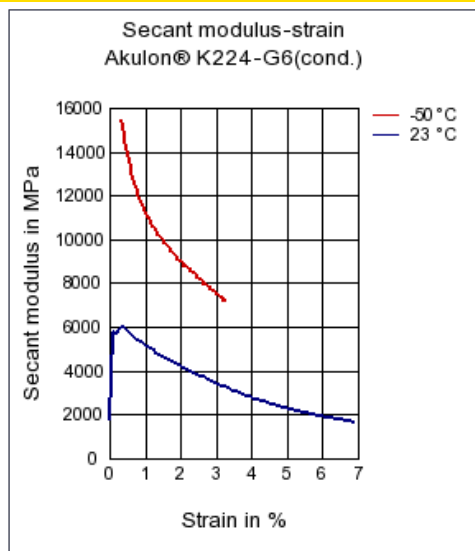
Stress-strain



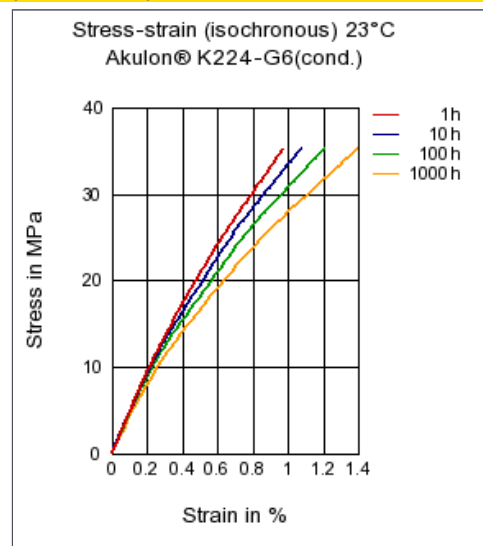
Secant modulus-strain



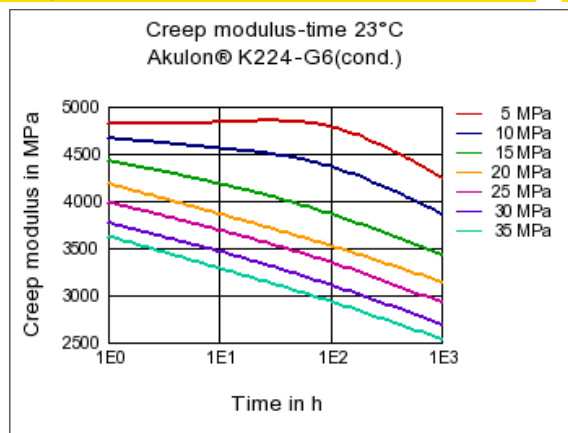
Secant modulus-strain



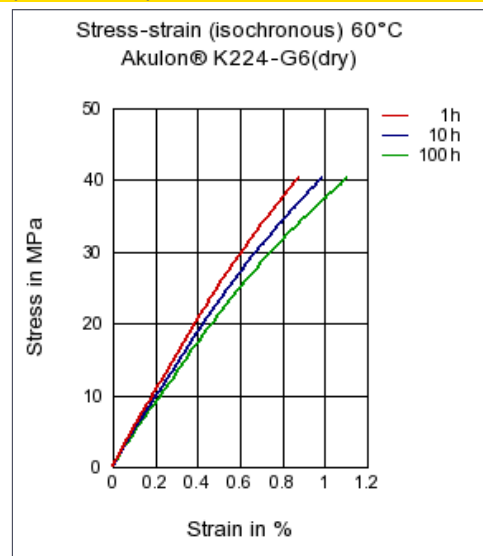
Stress-strain (isochronous) 23°C



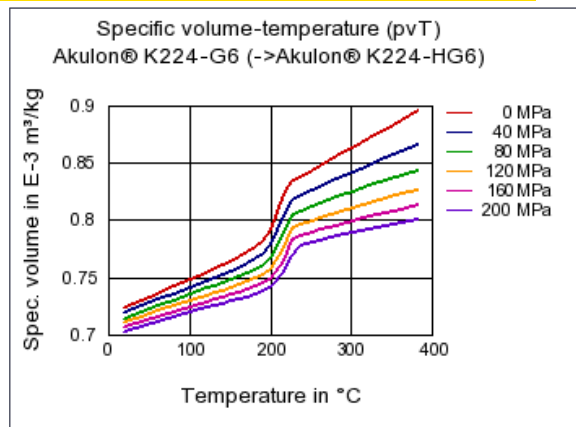
Creep modulus-time 23°C



Stress-strain (isochronous) 60°C



Specific volume-temperature (pvT)



Characteristics

Processing

Injection Molding

Additives

Release agent

Delivery form

Pellets

Other text information

Injection Molding

[Injection Molding Recommendations](#)