



<b>Akulon® K224-G6-FC BK00001</b>			
PA6-GF30			Envalior
<b>Product Texts</b>			
30% Glass Reinforced, Food Contact Quality			
ISO 1043 PA6-GF30			
Food contact declaration can be issued on request			
<b>Rheological properties</b>			
	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
Melt volume-flow rate, MVR	6.4 / *	cm <sup>3</sup> /10min	ISO 1133
Temperature	240 / *	°C	-
Load	2.16 / *	kg	-
Molding shrinkage, parallel	0.3 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.9 / *	%	ISO 294-4, 2577
<b>Mechanical properties</b>			
	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
Tensile Modulus	9500 / 6000	MPa	ISO 527
Stress at break	180 / 110	MPa	ISO 527
Strain at break	3.5 / 7	%	ISO 527
Charpy impact strength, +23°C	90 / 110	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C	75 / 75	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, +23°C	12 / 25	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30°C	11 / 11	kJ/m <sup>2</sup>	ISO 179/1eA
Shore D hardness, 15s	85 / -	-	ISO 7619-1
<b>Thermal properties</b>			
	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
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 beh. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	-
Yellow Card available	yes / *	-	-
Burning beh. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	3.0 / *	mm	-
Yellow Card available	yes / *	-	-
<b>Electrical properties</b>			
	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
Relative permittivity, 100Hz	3.5 / 20	-	IEC 62631-2-1
Relative permittivity, 1MHz	3.3 / 5	-	IEC 62631-2-1
Dissipation factor, 100Hz	50 / 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

**Akulon® K224-G6-FC BK00001**

PA6-GF30

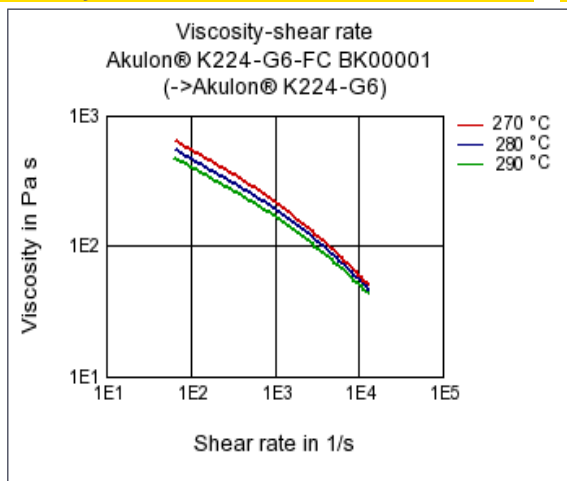
Envalior

Other properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
Water absorption	6.3 / *	%	Sim. to ISO 62
Humidity absorption	1.9 / *	%	Sim. to ISO 62
Density	1350 / -	kg/m <sup>3</sup>	ISO 1183

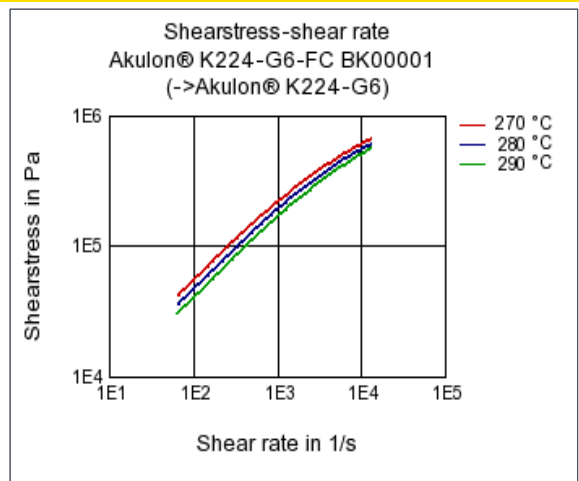
Rheological calculation properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Density of melt	1150	kg/m <sup>3</sup>	-
Thermal conductivity of melt	0.27	W/(m K)	-
Spec. heat capacity of melt	2110	J/(kg K)	-
Eff. thermal diffusivity	1.12E-7	m <sup>2</sup> /s	-

**Diagrams**

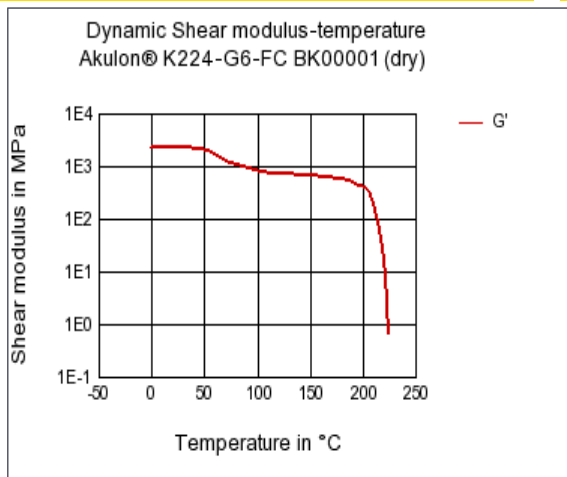
**Viscosity-shear rate**



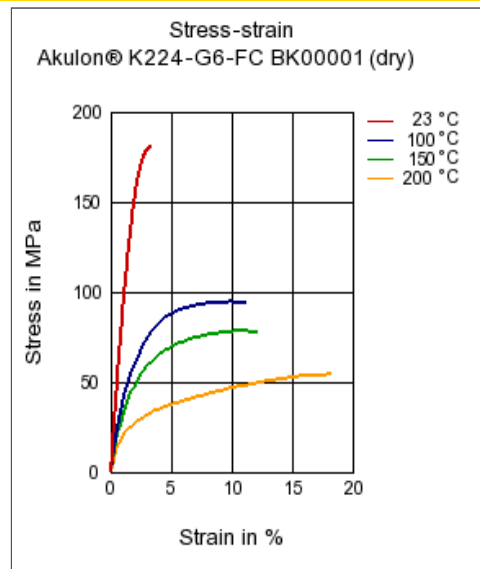
**Shearstress-shear rate**



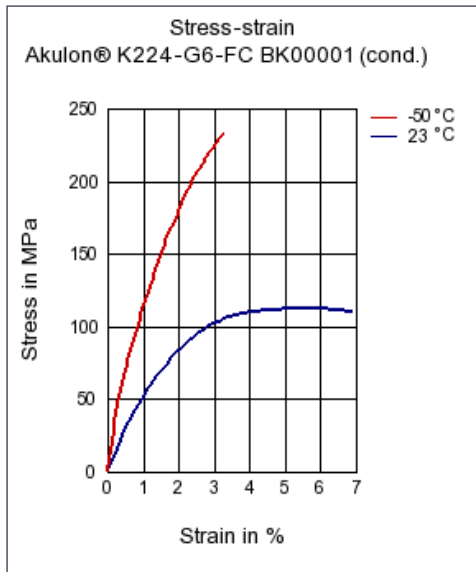
**Dynamic Shear modulus-temperature**



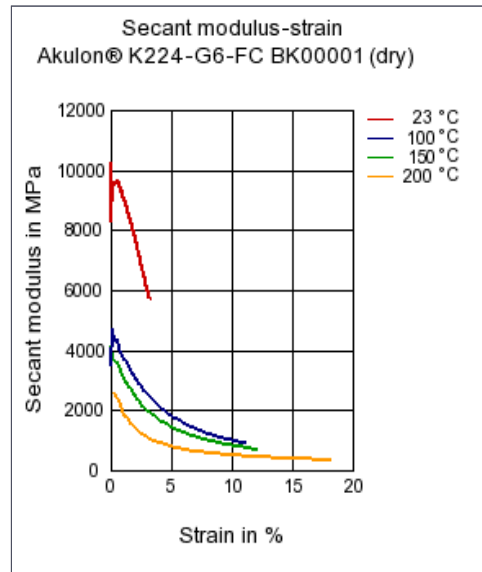
**Stress-strain**



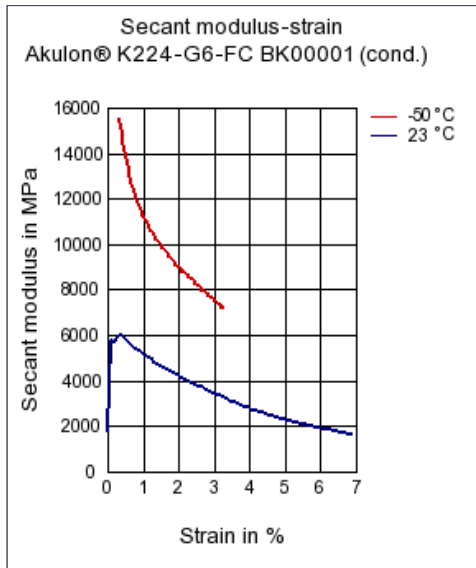
Stress-strain



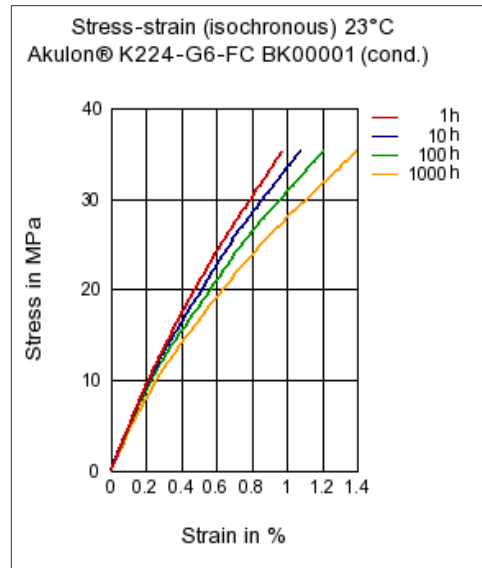
Secant modulus-strain



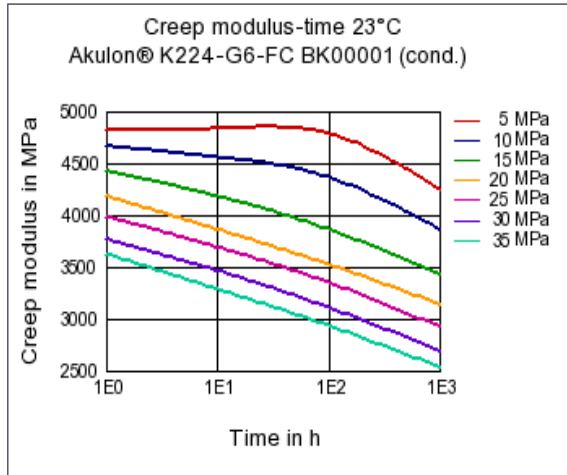
Secant modulus-strain



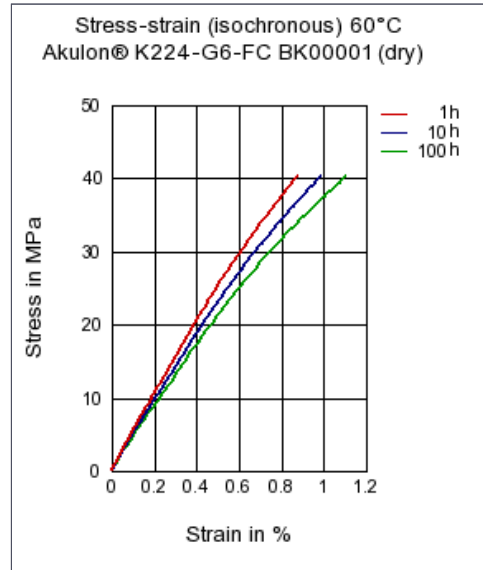
Stress-strain (isochronous) 23 °C



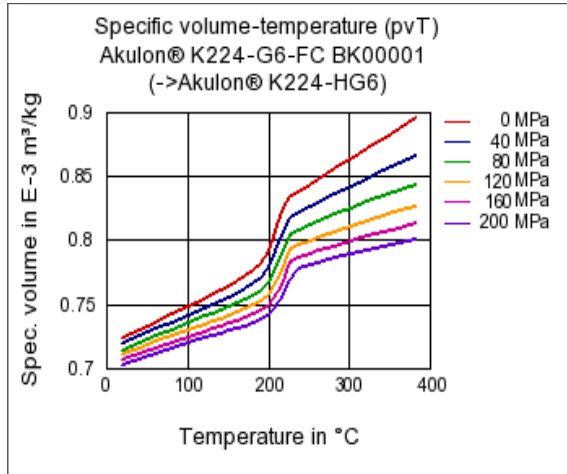
Creep modulus-time 23°C



Stress-strain (isochronous) 60°C



Specific volume-temperature (pvT)



Characteristics

Processing

Injection Molding

Additives

Release agent

Delivery form

Pellets, Black

Other text information

Injection Molding

[Injection Molding Recommendations](#)  
[Steel recommendations for molds screws and barrels](#)  
[Trouble shooting guideline for injection molding](#)

Chemical Media Resistance

Alcohols

- ☺ Methanol (23°C)
- ☺ Ethanol (23°C)

Hydrocarbons

- ☺ Toluene (23°C)

**Ketones**

☺ Acetone (23°C)

**Ethers**

☺ Diethyl ether (23°C)

**Other**

☺ Ethyl Acetate (23°C)

☺ Water (23°C)