Akulon® K224-PG6

PA6-I-GF30 Envalior

Product Texts

30% Glass Reinforced, Impact Modified

ISO 1043 PA6-I-GF30

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	20 / *	cm³/10min	ISO 1133
Temperature	275 / *	°C	-
Load	5 / *	kg	-
Molding shrinkage, parallel	0.4 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	1.0 / *	%	ISO 294-4, 2577

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	8700 / 4750	MPa	ISO 527
Stress at break	150 / 105	MPa	ISO 527
Strain at break	5 / 10	%	ISO 527
Charpy impact strength, +23°C	95 / 110	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	100 / 100	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	23 / 43	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	15 / 15	kJ/m²	ISO 179/1eA

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
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	3.0 / *	mm	-
Yellow Card available	yes / *	-	-

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
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

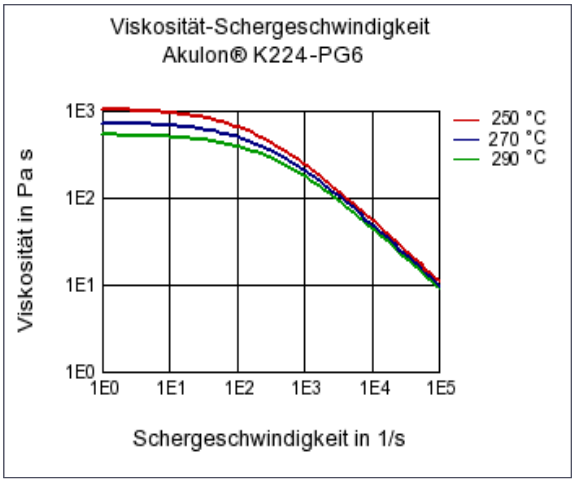
Other properties	dry / cond	Unit	Test Standard
ISO Data			
Water absorption	5.7 / *	%	Sim. to ISO 62
Humidity absorption	1.7 / *	%	Sim. to ISO 62
Density	1320 / -	kg/m³	ISO 1183

Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Density of melt	1110	kg/m³	-

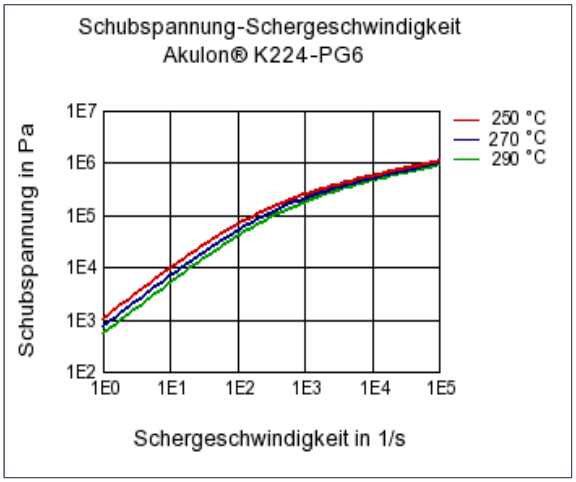
Thermal conductivity of melt	0.28	W/(m K)	-
Spec. heat capacity of melt	2830	J/(kg K)	-
Eff. thermal diffusivity	8.99E-8	m²/s	-

Diagrams

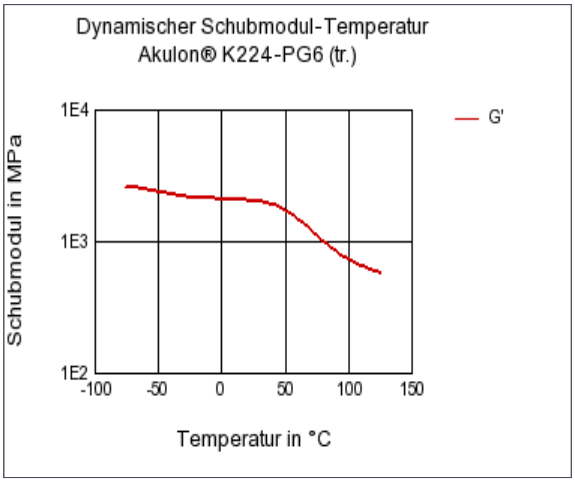
Viscosity-shear rate



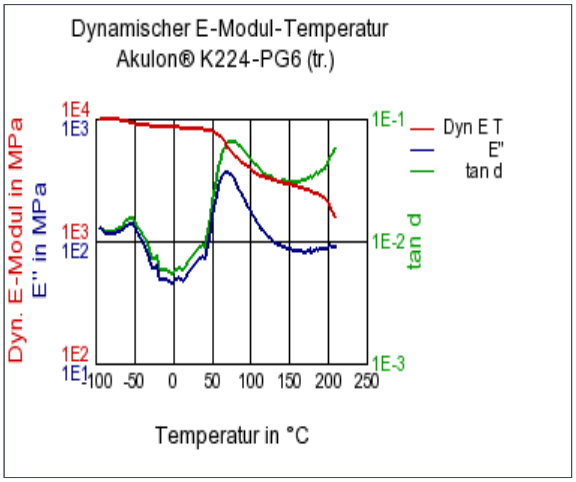
Shearstress-shear rate



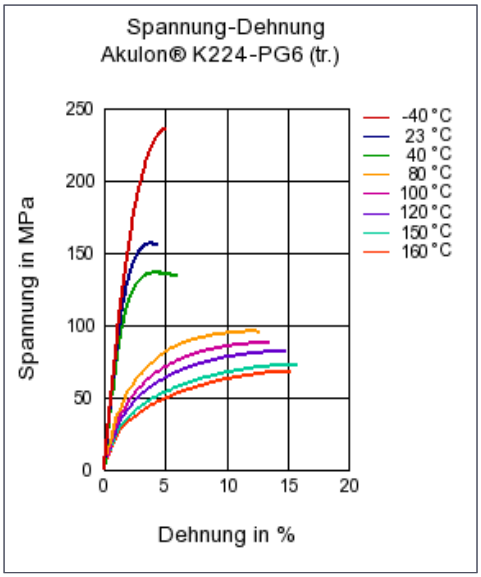
Dynamic Shear modulus-temperature



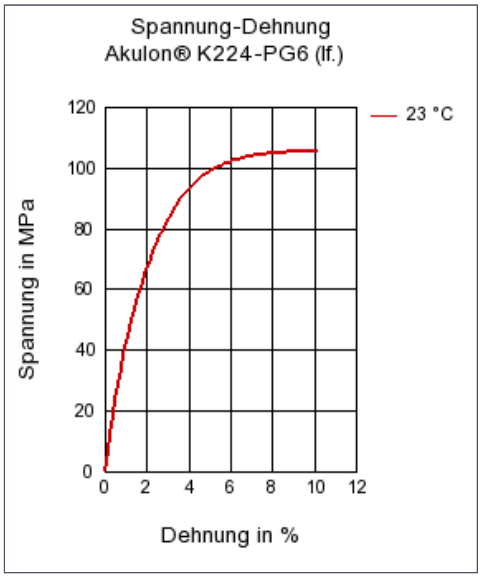
Dynamic Tensile modulus-temperature



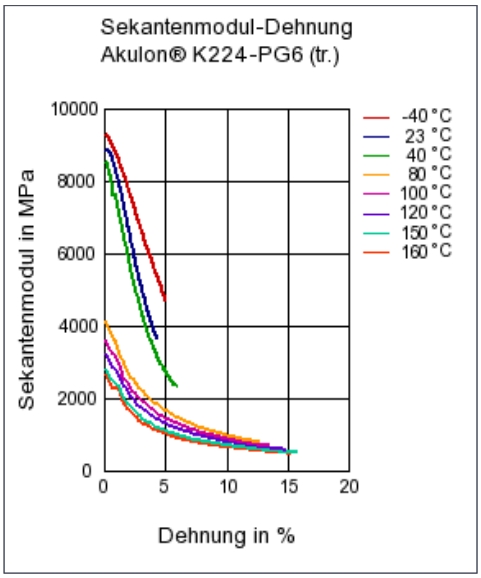
Stress-strain



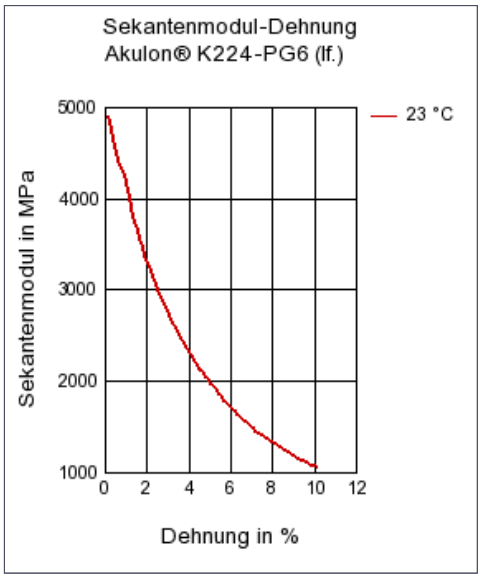
Stress-strain



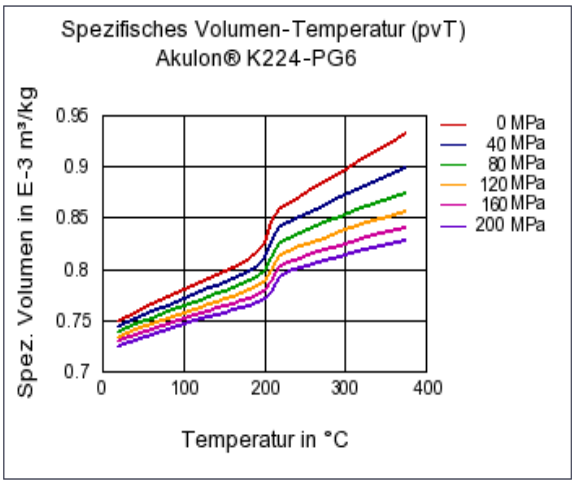
Secant modulus-strain



Secant modulus-strain



Specific volume-temperature (pvT)



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PA6-I-GF30 — Envalior

Characteristics

Processing	Additives
Injection Molding	Release agent
Delivery form	**Special Characteristics**
Pellets	High impact or impact modified

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)