

Akulon® K225-KS			
PA6 FR(30)			
DSM Engineering Plastics			
Product Texts			
Flame Retardant (halogen free), Heat Stabilized			
ISO 1043 PA6 FR(30)			
Akulon website			
Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	1.1 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.9 / *	%	ISO 294-4, 2577
Mechanical properties			
ISO Data	dry / cond	Unit	Test Standard
Tensile Modulus	3800 / 1400	MPa	ISO 527-1/-2
Yield stress	80 / 40	MPa	ISO 527-1/-2
Yield strain	3.5 / 22	%	ISO 527-1/-2
Nominal strain at break	8 / >50	%	ISO 527-1/-2
Charpy impact strength (+23°C)	60 / -	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	55 / -	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	6 / 10	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	5 / 5	kJ/m ²	ISO 179/1eA
Thermal properties			
ISO Data	dry / cond	Unit	Test Standard
Melting temperature (10°C/min)	220 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	75 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	180 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	90 / *	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	90 / *	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
UL recognition	UL / *	-	-
Burning behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.4 / *	mm	IEC 60695-11-10
UL recognition	UL / *	-	-
Electrical properties			
ISO Data	dry / cond	Unit	Test Standard
Relative permittivity, 100Hz	3.3 / 8	-	IEC 60250
Relative permittivity, 1MHz	3.2 / 3.6	-	IEC 60250
Dissipation factor, 100Hz	90 / 1250	E-4	IEC 60250
Dissipation factor, 1MHz	200 / 800	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 / 600	-	IEC 60112
Other properties			
ISO Data	dry / cond	Unit	Test Standard
Water absorption	9 / *	%	Sim. to ISO 62
Humidity absorption	2.5 / *	%	Sim. to ISO 62
Density	1180 / -	kg/m ³	ISO 1183

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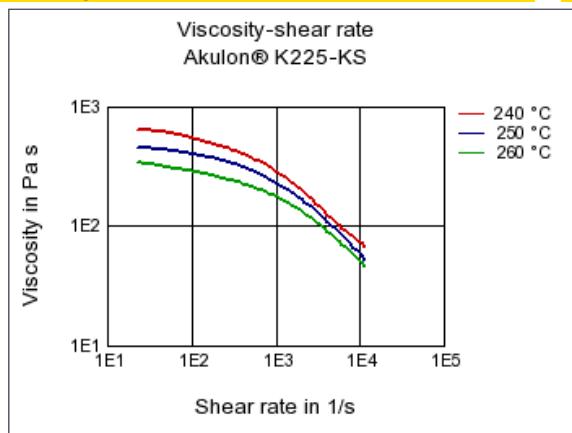
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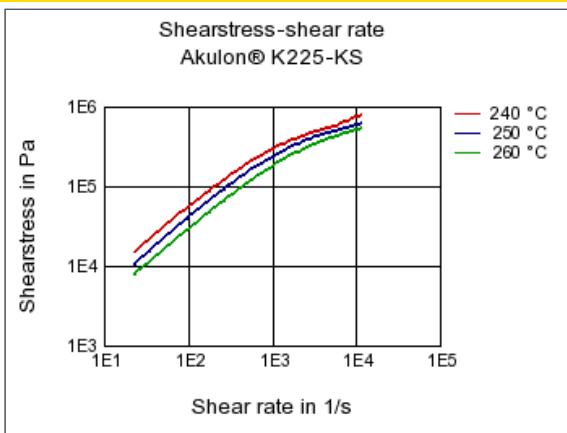
Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Density of melt	898	kg/m ³	-
Thermal conductivity of melt	0.28	W/(m K)	-
Spec. heat capacity of melt	2530	J/(kg K)	-
Eff. thermal diffusivity	1.22E-7	m ² /s	-

Diagrams

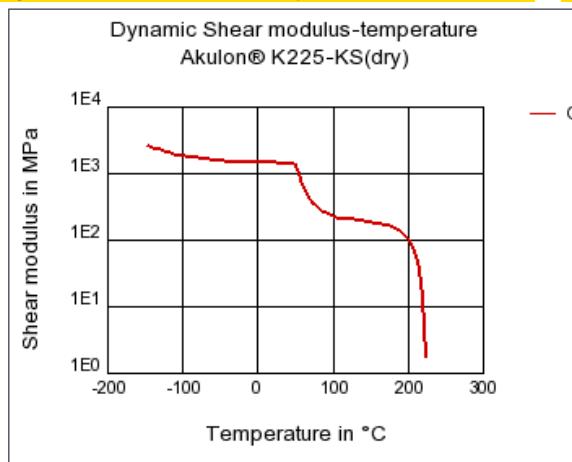
Viscosity-shear rate



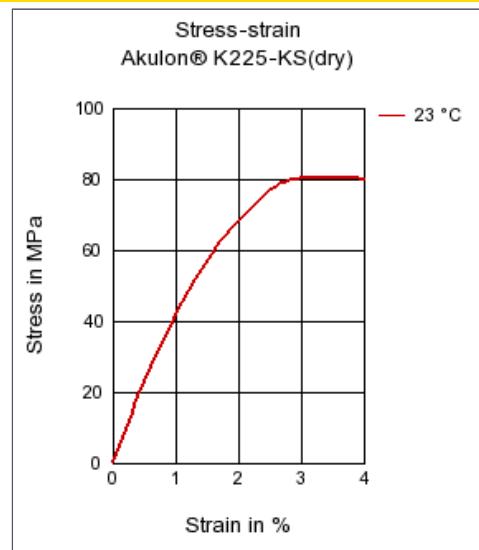
Shearstress-shear rate



Dynamic Shear modulus-temperature



Stress-strain

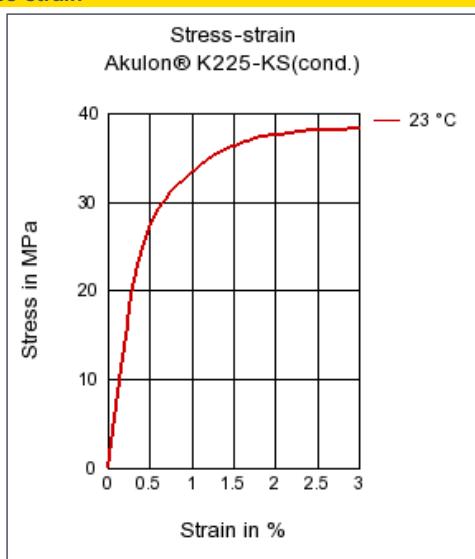


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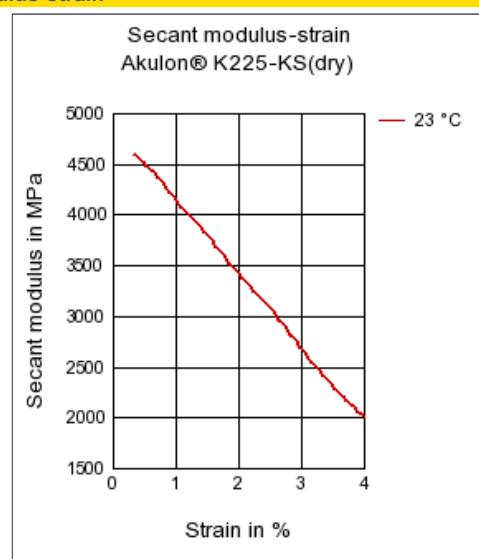
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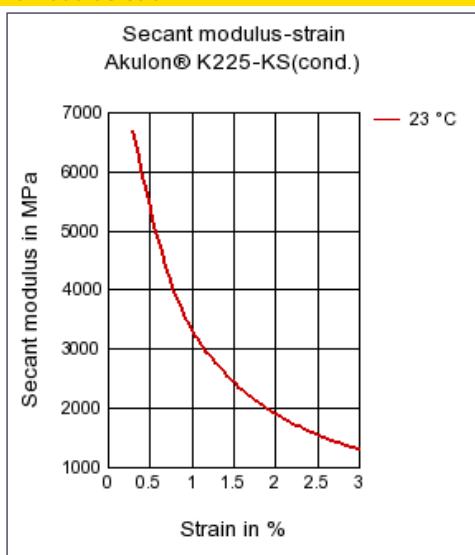
Stress-strain



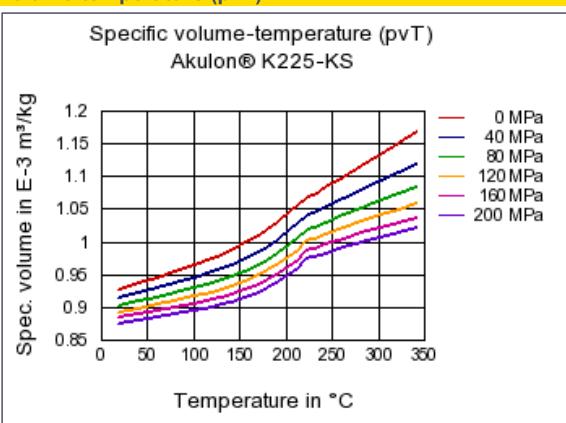
Secant modulus-strain



Secant modulus-strain



Specific volume-temperature (pvT)



Characteristics

Processing

Injection Molding

Additives

Release agent

Delivery form

Pellets

Special Characteristics

Flame retardant, Heat stabilized or stable to heat

Other text information

Injection Molding

[Injection Molding Recommendations](#)