Akulon® K223-HM6

PA6-MD30 DSM Engineering Plastics

Product Texts

30% Mineral Reinforced, Heat Stabilized

ISO 1043 PA6-MD30

Akulon website

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	0.8 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.7 / *	%	ISO 294-4, 2577

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	7000 / 3000	MPa	ISO 527-1/-2
Stress at break	75 / 40	MPa	ISO 527-1/-2
Strain at break	3 / 15	%	ISO 527-1/-2
Charpy impact strength (+23°C)	40 / 50	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	40 / 40	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	3 / 4	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	2 / 3	kJ/m²	ISO 179/1eA

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
Melting temperature (10°C/min)	220 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	135 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	205 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	40 / *	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	40 / *	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	0.7 / *	mm	IEC 60695-11-10
UL recognition	UL / *	-	-

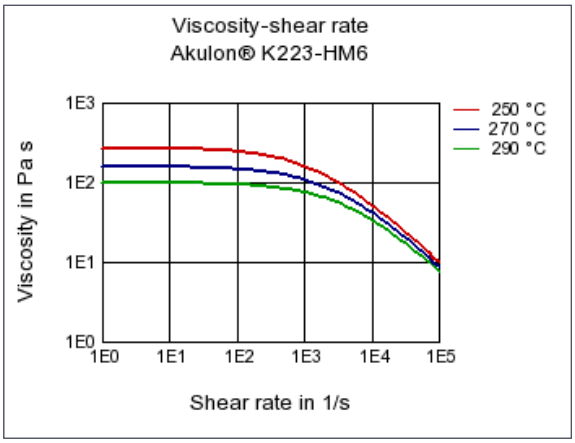
Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	3.2 / 15	-	IEC 60250
Relative permittivity, 1MHz	3 / 4.5	-	IEC 60250
Dissipation factor, 100Hz	50 / 3500	E-4	IEC 60250
Dissipation factor, 1MHz	130 / 1100	E-4	IEC 60250
Volume resistivity	1E13 / 1E11	Ohm*m	IEC 60093
Surface resistivity	* / 1E13	Ohm	IEC 60093
Electric strength	30 / 25	kV/mm	IEC 60243-1
Comparative tracking index	500 / 500	-	IEC 60112

Other properties	dry / cond	Unit	Test Standard
ISO Data			
Water absorption	6.6 / *	%	Sim. to ISO 62
Humidity absorption	1.9 / *	%	Sim. to ISO 62
Density	1380 / -	kg/m³	ISO 1183

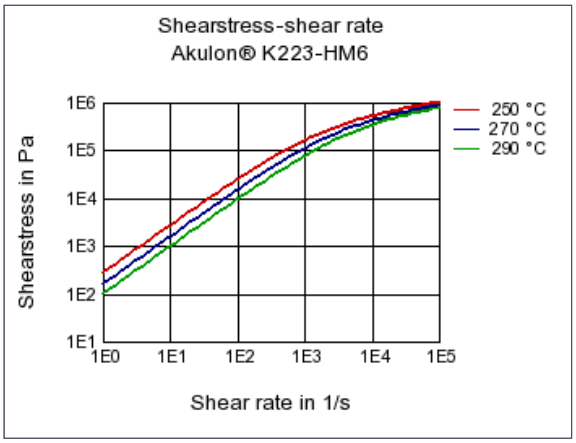
Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Density of melt	1160	kg/m³	-
Thermal conductivity of melt	0.32	W/(m K)	-
Spec. heat capacity of melt	2450	J/(kg K)	-
Eff. thermal diffusivity	1.14E-7	m²/s	-

Diagrams

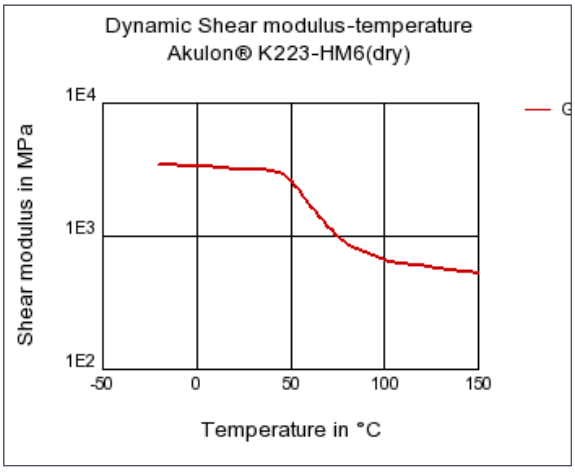
Viscosity-shear rate



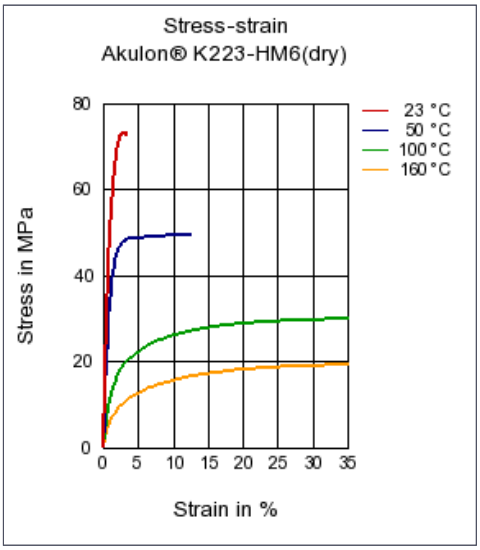
Shearstress-shear rate



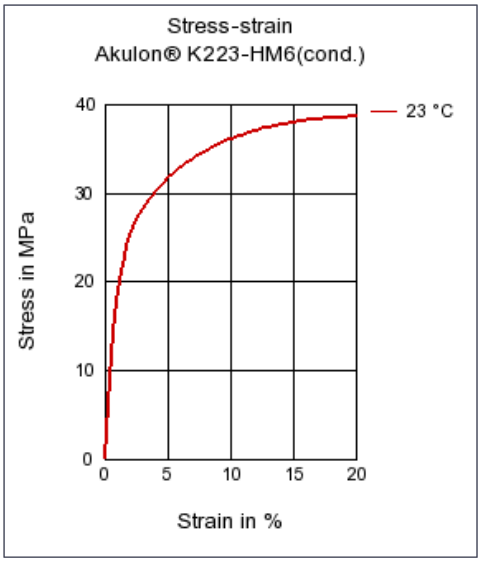
Dynamic Shear modulus-temperature



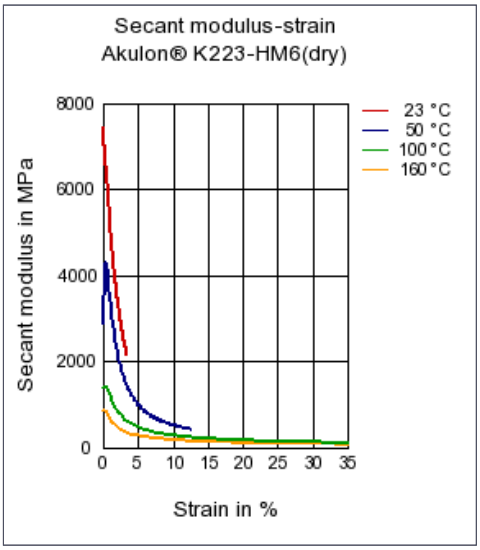
Stress-strain



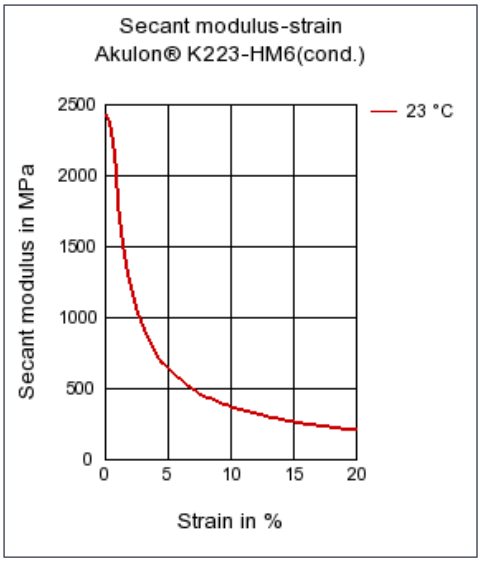
Stress-strain



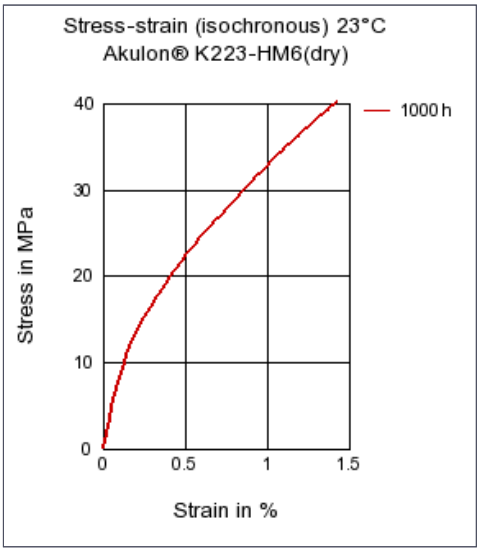
Secant modulus-strain



Secant modulus-strain



Stress-strain (isochronous) 23°C



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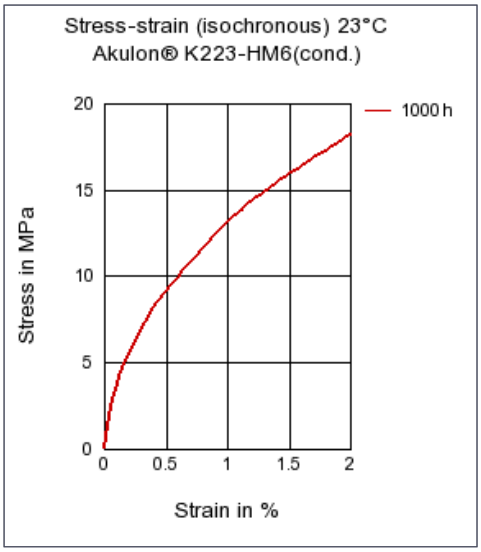
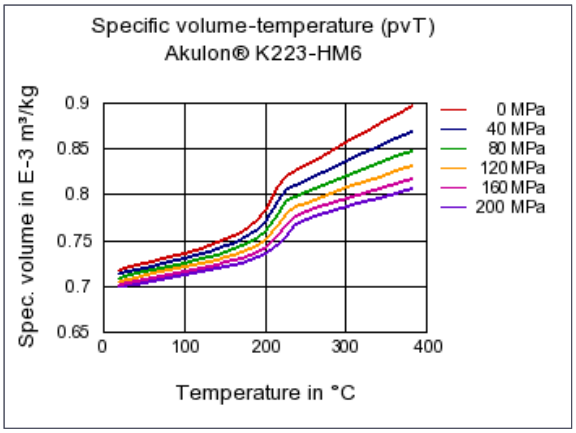


Specific volume-temperature (pvT)



Akulon® K223-HM6

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Characteristics

Processing
Injection Molding

Additives
Release agent

Delivery form
Pellets

Special Characteristics
Heat stabilized or stable to heat

Other text information

Injection Molding
Injection Molding Recommendations