Akulon® K223-TP4

PA6-I — DSM Engineering Plastics

Product Texts

Impact Modified

ISO 1043 PA6-I

Akulon website

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	1.4 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	1.7 / *	%	ISO 294-4, 2577

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	2000 / 625	MPa	ISO 527-1/-2
Yield stress	50 / 30	MPa	ISO 527-1/-2
Yield strain	4 / 30	%	ISO 527-1/-2
Nominal strain at break	>50 / >50	%	ISO 527-1/-2
Charpy impact strength (+23°C)	N / N	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	N / N	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	65 / 75	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	18 / 25	kJ/m²	ISO 179/1eA

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	55 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	130 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	120 / *	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	120 / *	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.6 / *	mm	IEC 60695-11-10

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	3.1 / 10	-	IEC 60250
Relative permittivity, 1MHz	2.7 / 3.5	-	IEC 60250
Dissipation factor, 100Hz	30 / 1600	E-4	IEC 60250
Dissipation factor, 1MHz	160 / 1000	E-4	IEC 60250
Volume resistivity	1E13 / 1E11	Ohm*m	IEC 60093
Surface resistivity	* / 5E14	Ohm	IEC 60093
Electric strength	27 / 20	kV/mm	IEC 60243-1
Comparative tracking index	- / 600	-	IEC 60112

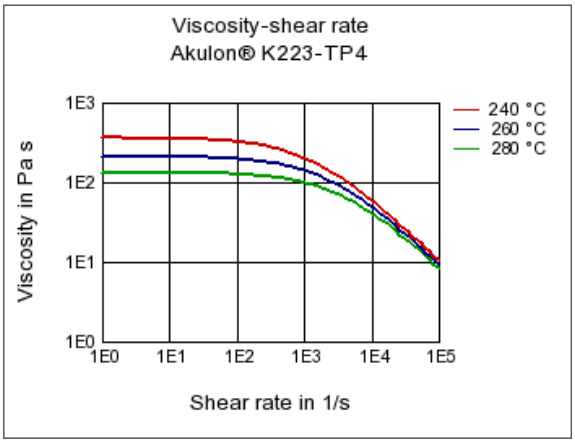
Other properties	dry / cond	Unit	Test Standard
ISO Data			
Water absorption	8.5 / *	%	Sim. to ISO 62
Humidity absorption	2.3 / *	%	Sim. to ISO 62
Density	1070 / -	kg/m³	ISO 1183

Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Density of melt	869	kg/m³	-
Thermal conductivity of melt	0.22	W/(m K)	-
Spec. heat capacity of melt	2740	J/(kg K)	-

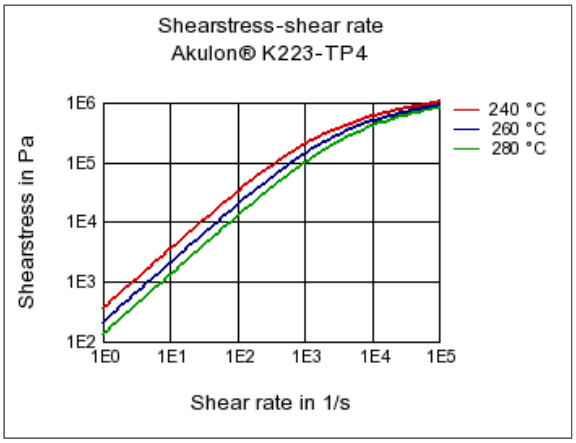
Eff. thermal diffusivity	9.37E-8	m²/s	-

Diagrams

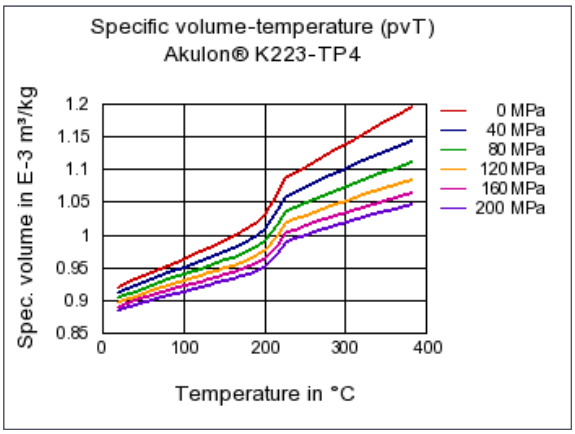
Viscosity-shear rate



Shearstress-shear rate



Specific volume-temperature (pvT)



Characteristics

Processing
Injection Molding

Additives
Release agent

Delivery form
Pellets

Special Characteristics
High impact or impact modified

Other text information

Injection Molding
Injection Molding Recommendations