


Akulon® S223-E

PA66

DSM Engineering Plastics

Product Texts

Low/Medium Viscosity

ISO 1043 PA66

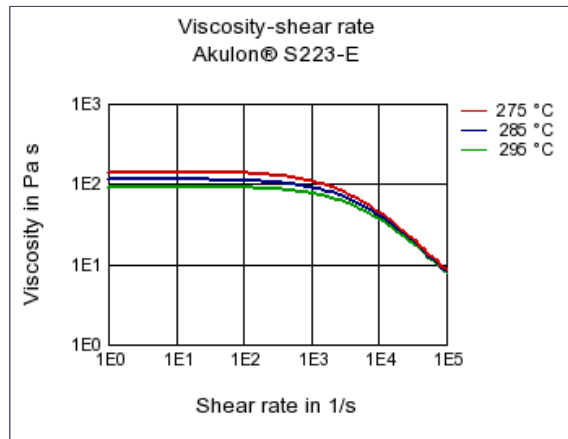
[Akulon website](#)

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	3500 / 1500	MPa	ISO 527-1/-2
Yield stress	95 / 60	MPa	ISO 527-1/-2
Yield strain	3.5 / 20	%	ISO 527-1/-2
Nominal strain at break	25 / >50	%	ISO 527-1/-2
Charpy impact strength (+23°C)	N / N	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	N / N	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	6 / 12	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	6 / 6	kJ/m ²	ISO 179/1eA
Thermal properties			
ISO Data			
Melting temperature (10°C/min)	260 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	80 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	225 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	100 / *	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	100 / *	E-6/K	ISO 11359-1/-2
Burning beh. at 1.5 mm nom. thickn.	V-2 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
UL recognition	UL / *	-	-
Burning beh. at thickness h	V-2 / *	class	IEC 60695-11-10
Thickness tested	3.0 / *	mm	IEC 60695-11-10
UL recognition	UL / *	-	-
Electrical properties			
ISO Data			
Relative permittivity, 100Hz	3.2 / 10	-	IEC 60250
Relative permittivity, 1MHz	3 / 4	-	IEC 60250
Dissipation factor, 100Hz	60 / 1400	E-4	IEC 60250
Dissipation factor, 1MHz	170 / 1000	E-4	IEC 60250
Volume resistivity	1E13 / 1E10	Ohm*m	IEC 60093
Surface resistivity	* / 1E14	Ohm	IEC 60093
Electric strength	25 / 20	kV/mm	IEC 60243-1
Comparative tracking index	600 / 600	-	IEC 60112
Other properties			
ISO Data			
Water absorption	8.5 / *	%	Sim. to ISO 62
Humidity absorption	2.3 / *	%	Sim. to ISO 62
Density	1140 / -	kg/m ³	ISO 1183
Rheological calculation properties			
ISO Data			
Density of melt	969	kg/m ³	-
Thermal conductivity of melt	0.13	W/(m K)	-

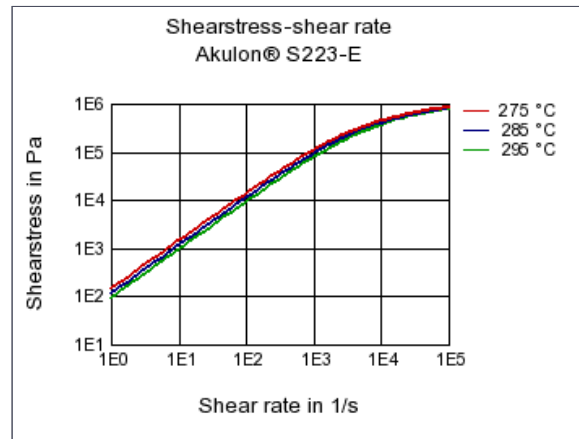
Spec. heat capacity of melt	2750	J/(kg K)	-
Eff. thermal diffusivity	4.87E-8	m²/s	-

Diagrams

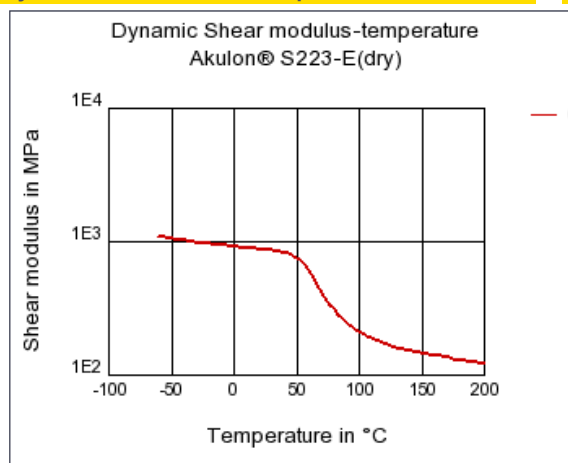
Viscosity-shear rate



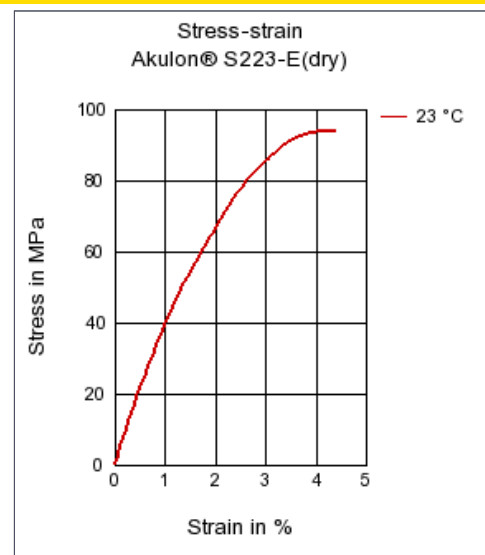
Shearstress-shear rate



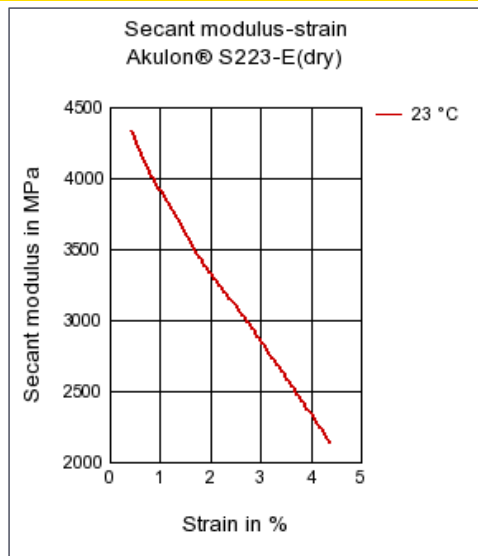
Dynamic Shear modulus-temperature



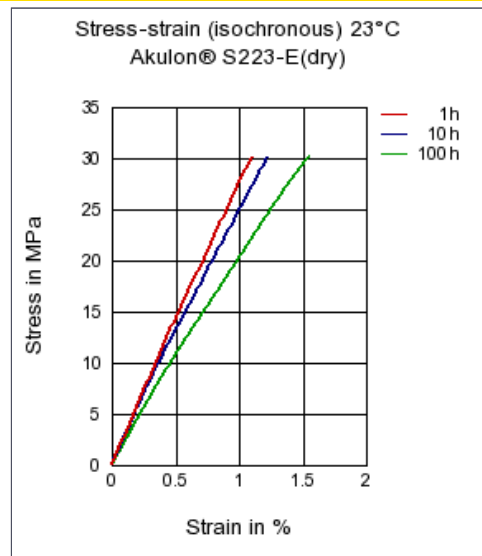
Stress-strain



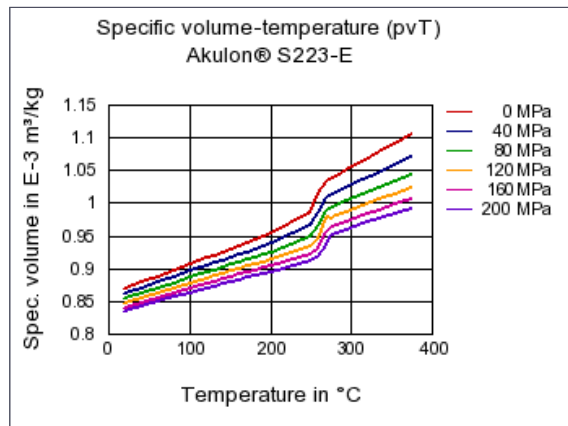
Secant modulus-strain



Stress-strain (isochronous) 23°C



Specific volume-temperature (pvT)



Characteristics

Processing

Injection Molding

Additives

Lubricants

Delivery form

Pellets

Other text information

Injection Molding

[Injection Molding Recommendations](#)