Akulon® S223-HM8

PA66-MD40 — DSM Engineering Plastics

Product Texts

40% Mineral Reinforced, Heat Stabilized

ISO 1043 PA66-MD40

Akulon website

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	0.4 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.4 / *	%	ISO 294-4, 2577

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	8500 / 4400	MPa	ISO 527-1/-2
Stress at break	75 / 45	MPa	ISO 527-1/-2
Strain at break	2 / 11	%	ISO 527-1/-2
Charpy impact strength (+23°C)	30 / 40	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	25 / 25	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	5 / 10	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	3 / 3	kJ/m²	ISO 179/1eA

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
Melting temperature (10°C/min)	260 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	200 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	245 / *	°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 / *	-	-

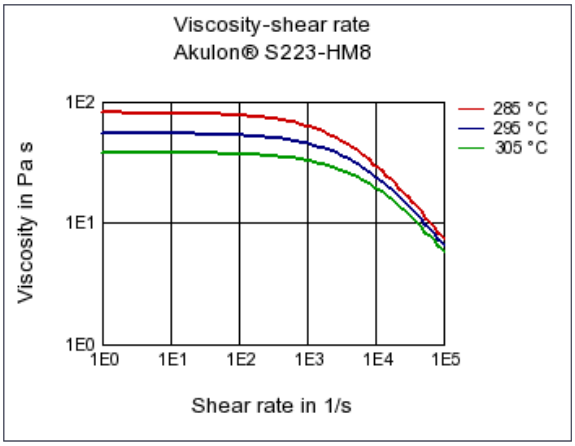
Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	3.8 / 10	-	IEC 60250
Relative permittivity, 1MHz	3.5 / 4	-	IEC 60250
Dissipation factor, 100Hz	100 / 3000	E-4	IEC 60250
Dissipation factor, 1MHz	110 / 1000	E-4	IEC 60250
Volume resistivity	1E12 / 1E10	Ohm*m	IEC 60093
Surface resistivity	* / 1E13	Ohm	IEC 60093
Electric strength	35 / 30	kV/mm	IEC 60243-1
Comparative tracking index	600 / 600	-	IEC 60112

Other properties	dry / cond	Unit	Test Standard
ISO Data			
Water absorption	5.3 / *	%	Sim. to ISO 62
Humidity absorption	1.4 / *	%	Sim. to ISO 62
Density	1490 / -	kg/m³	ISO 1183

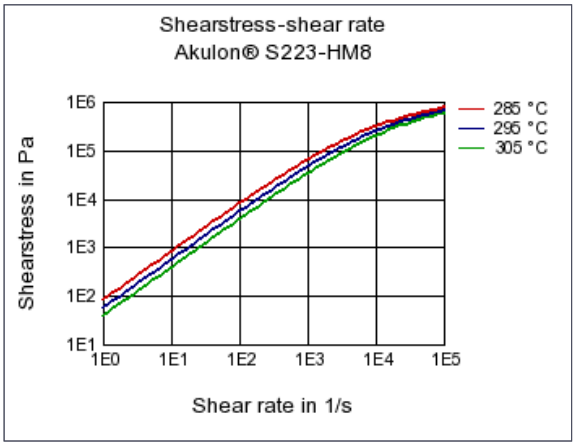
Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Thermal conductivity of melt	0.311	W/(m K)	-
Spec. heat capacity of melt	2070	J/(kg K)	-

Diagrams

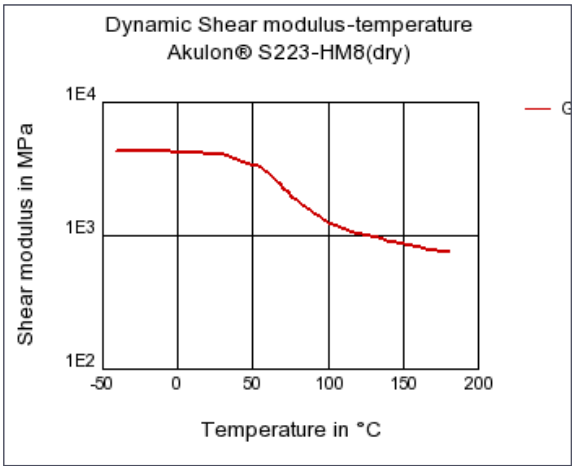
Viscosity-shear rate



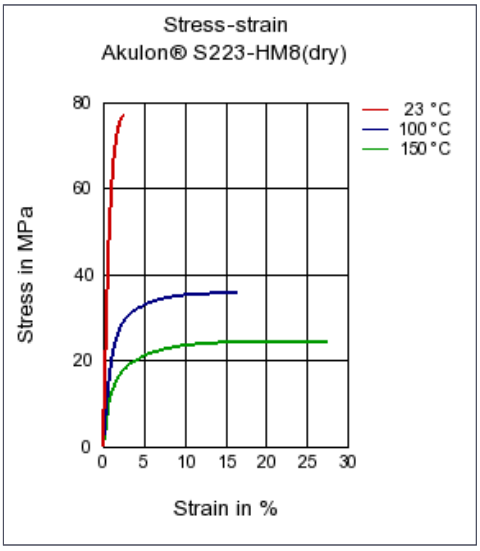
Shearstress-shear rate



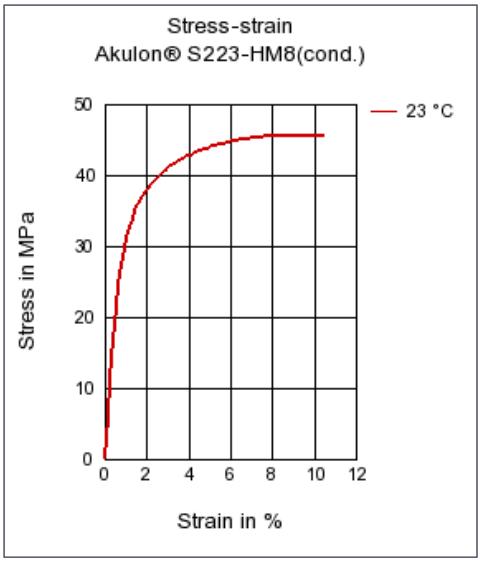
Dynamic Shear modulus-temperature



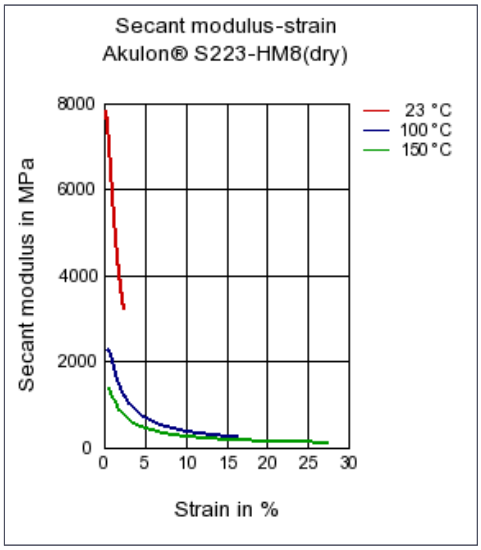
Stress-strain



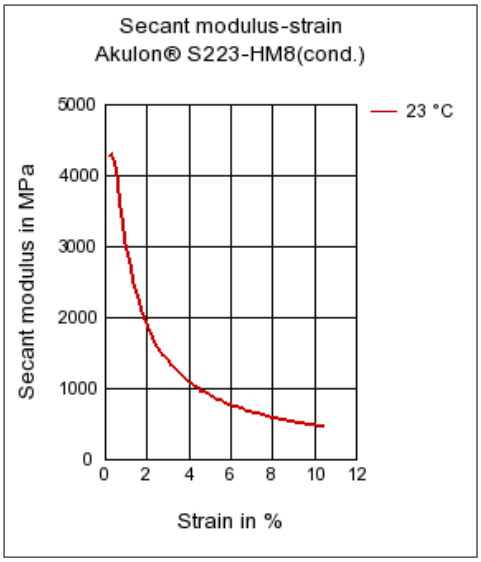
Stress-strain



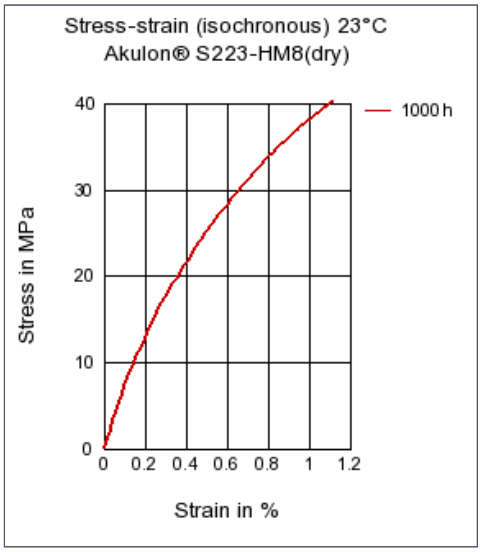
Secant modulus-strain



Secant modulus-strain



Stress-strain (isochronous) 23°C



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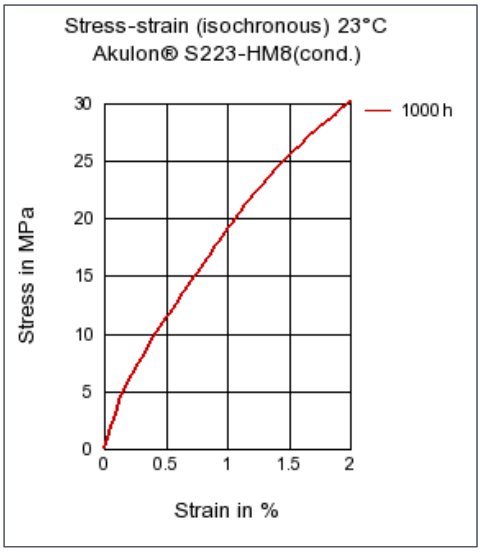
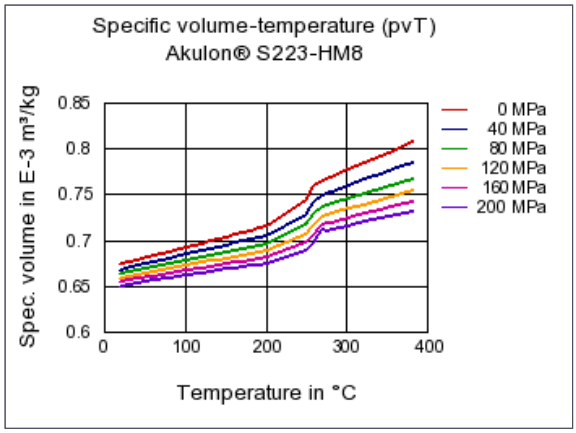


Specific volume-temperature (pvT)



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