

TECHNICAL DATA SHEET

Akulon® S223-HG7

Envalior
PA66-GF35

Processing

Injection molding

Delivery Form

Pellets

Special Characteristics

Heat stabilized or stable to heat

Product Text

Product Information

35% Glass Reinforced, Heat Stabilized

ISO 1043 PA66-GF35

Processing/Physical Characteristics	Value	Unit	Standard
Melt volume-flow rate, MVR	10.6	cm ³ /10min	ISO 1133
Temperature	275	°C	
Load	5	kg	
Eff. thermal diffusivity	1.2E-7	m ² /s	
Mechanical Properties	Value	Unit	Standard
Tensile modulus	11500	MPa	ISO 527
Stress at break	210	MPa	ISO 527
Strain at break	3.5	%	ISO 527
Poisson's ratio	0.35		ISO 527
Charpy impact strength, +23°C	90	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	74	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C	12.8	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	11	kJ/m ²	ISO 179/1eA
Thermal Properties	Value	Unit	Standard
Melting temperature, 10°C/min	260	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.80 MPa	247	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	260	°C	ISO 75-1/-2

Akulon® S223-HG7

Envalior

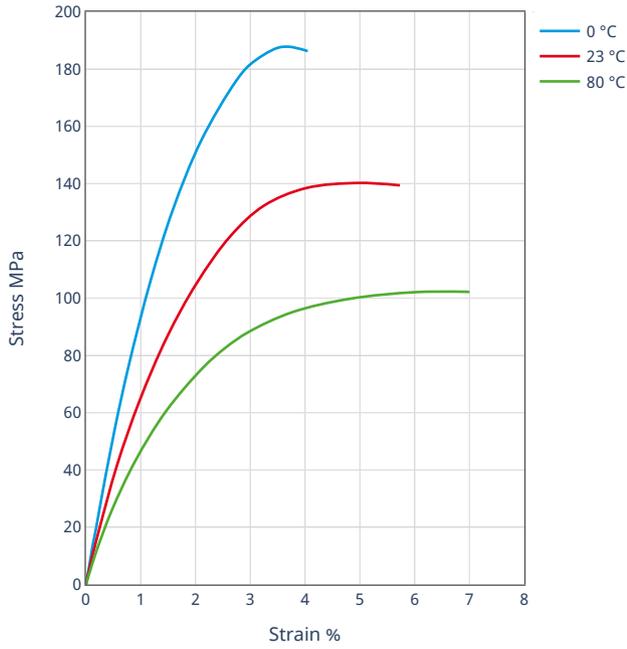
Thermal Properties	Value	Unit	Standard
Coeff. of linear therm. expansion, parallel	20	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	60	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	
Yellow card available	yes		
Burning behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	3	mm	
Yellow card available	yes		
Burning rate, FMVSS, thickness 1 mm	30	mm/min	ISO 3795 (FMVSS 302)
Electrical Properties	Value	Unit	Standard
Relative permittivity, 100Hz	4		IEC 62631-2-1
Relative permittivity, 1MHz	3.6		IEC 62631-2-1
Dissipation factor, 100Hz	50	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	140	E-4	IEC 62631-2-1
Volume resistivity	1E12	Ohm*m	IEC 62631-3-1
Surface resistivity	1E13	Ohm	IEC 62631-3-2
Electric strength	35	kV/mm	IEC 60243-1
Comparative tracking index	500		IEC 60112
Other Properties	Value	Unit	Standard
Water absorption	5.5	%	Sim. to ISO 62
Humidity absorption	1.5	%	Sim. to ISO 62
Density	1410	kg/m ³	ISO 1183

Diagrams

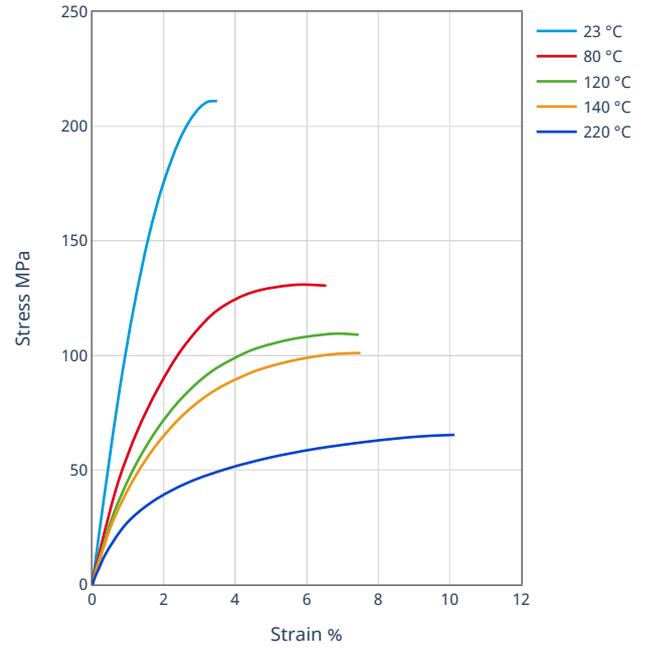
Akulon® S223-HG7

Envalior

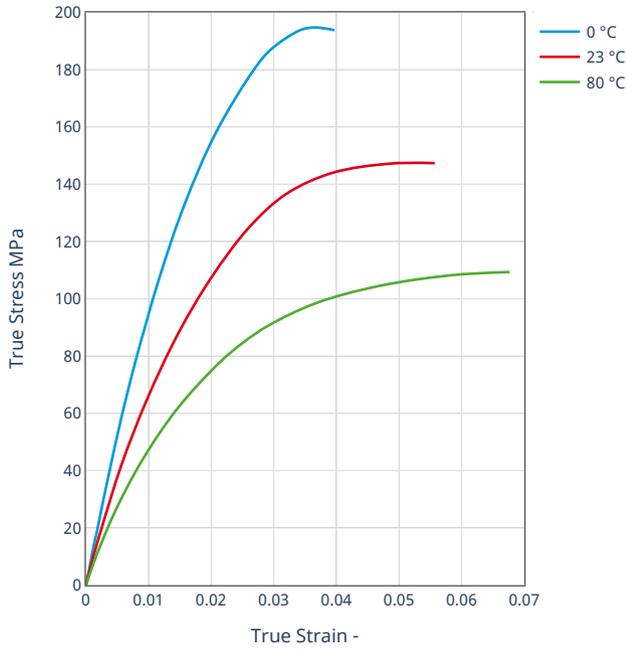
Stress-strain



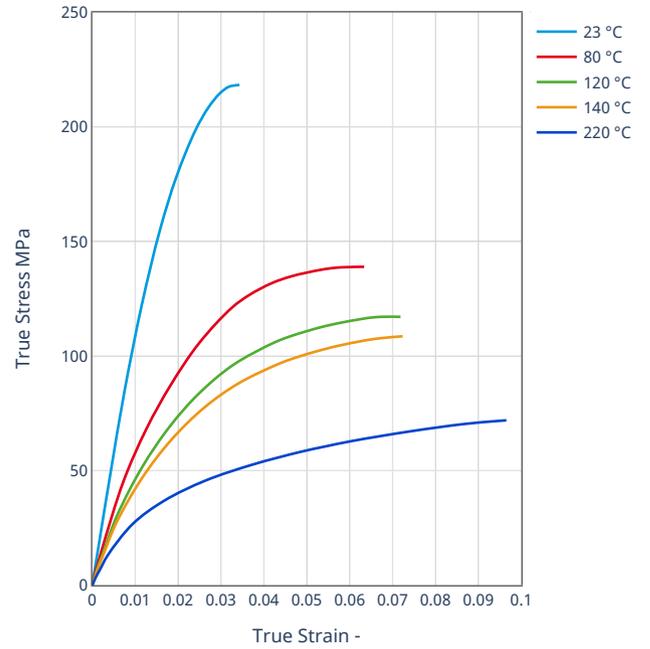
Stress-strain



True stress-true strain



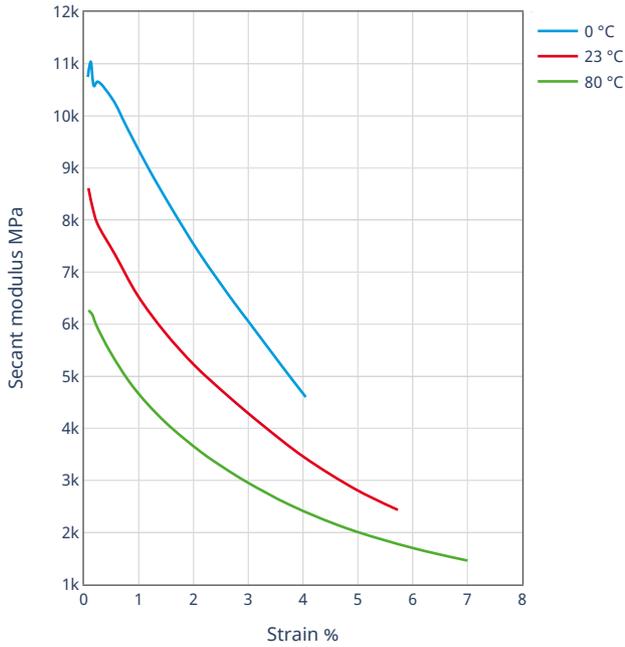
True stress-true strain



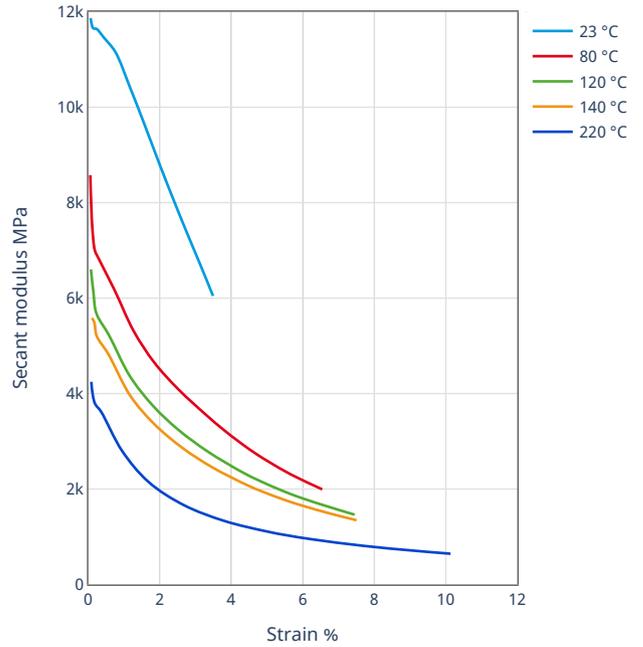
Akulon® S223-HG7

Envalior

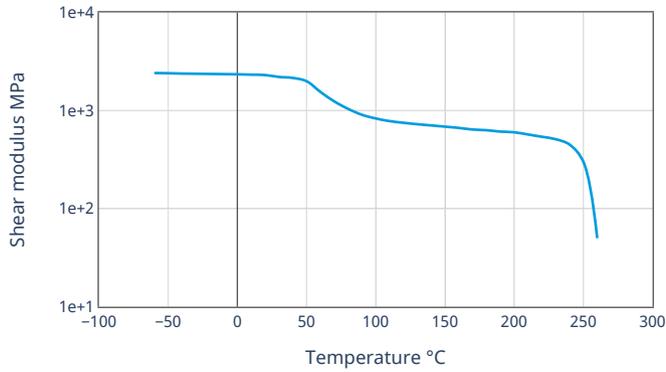
Secant modulus-strain



Secant modulus-strain



Dynamic shear modulus-temperature



Processing Information

Injection molding

Injection Molding Recommendations

Steel recommendations for molds screws and barrels

Trouble shooting guideline for injection molding