

TECHNICAL DATA SHEET

# Akulon® S223-HG6

Envalior  
PA66-GF30

**Processing**

Injection molding

**Delivery Form**

Pellets

**Additives**

Release agent

**Special Characteristics**

Heat stabilized or stable to heat

## Product Text

**Product Information**

30% Glass Reinforced, Heat Stabilized

ISO 1043 PA66-GF30

Processing/Physical Characteristics	Value	Unit	Standard
Melt volume-flow rate, MVR	12.7	cm <sup>3</sup> /10min	ISO 1133
Temperature	275	°C	
Load	5	kg	
Thermal conductivity of melt	0.28	W/(m K)	
Spec. heat capacity of melt	2170	J/(kg K)	

Mechanical Properties	Value	Unit	Standard
Tensile modulus	10000	MPa	ISO 527
Stress at break	205	MPa	ISO 527
Strain at break	3.6	%	ISO 527
Poisson's ratio	0.35		ISO 527
Charpy impact strength, +23°C	81	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C	65	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, +23°C	10	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30°C	9	kJ/m <sup>2</sup>	ISO 179/1eA

Thermal Properties	Value	Unit	Standard
Melting temperature, 10°C/min	260	°C	ISO 11357-1/-3

# Akulon® S223-HG6

Envalior

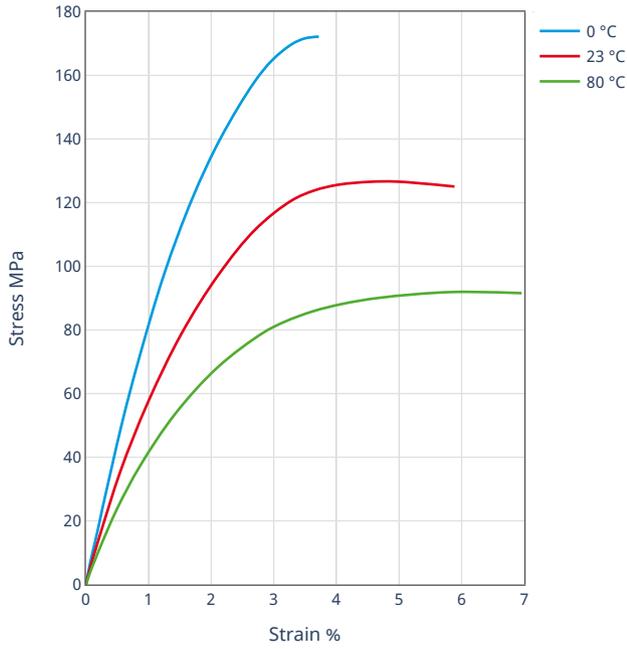
Thermal Properties	Value	Unit	Standard
Temp. of deflection under load, 1.80 MPa	250	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	260	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	20	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	70	E-6/K	ISO 11359-1/-2
Burning 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	50	mm/min	ISO 3795 (FMVSS 302)
Electrical Properties	Value	Unit	Standard
Relative permittivity, 100Hz	3.8		IEC 62631-2-1
Relative permittivity, 1MHz	3.5		IEC 62631-2-1
Dissipation factor, 100Hz	90	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	160	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	30	kV/mm	IEC 60243-1
Comparative tracking index	500		IEC 60112
Other Properties	Value	Unit	Standard
Water absorption	6	%	Sim. to ISO 62
Humidity absorption	1.6	%	Sim. to ISO 62
Density	1360	kg/m <sup>3</sup>	ISO 1183

## Diagrams

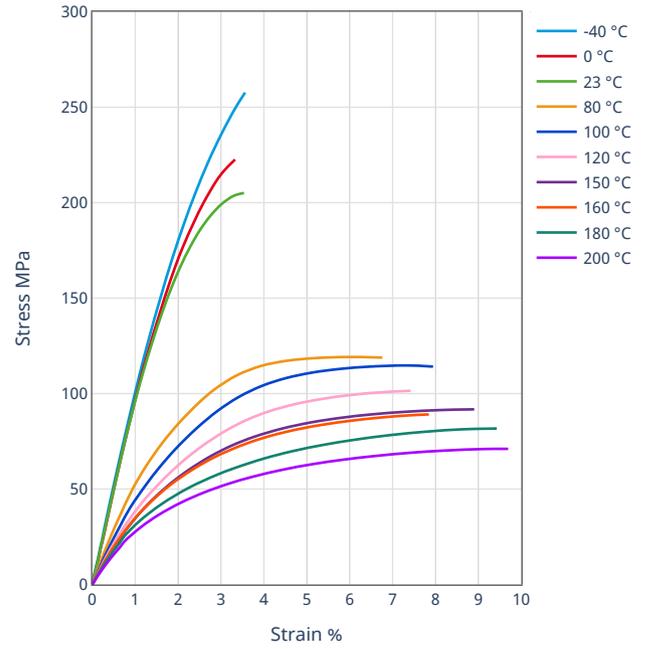
# Akulon® S223-HG6

Envalior

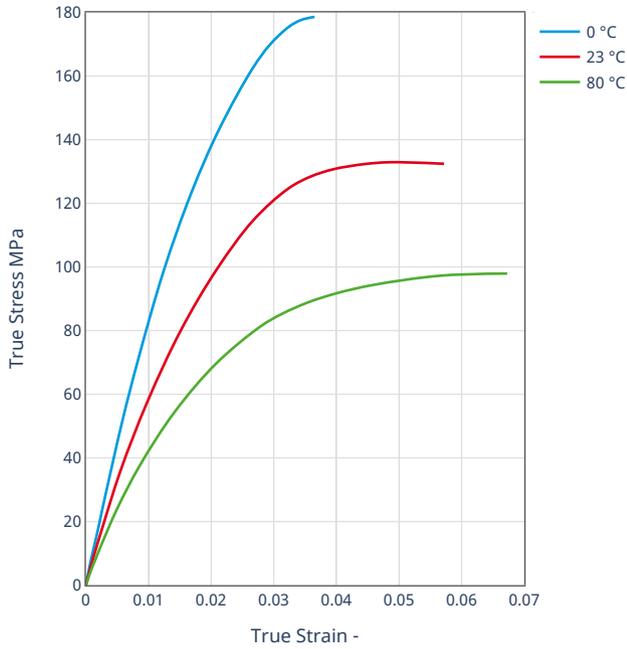
Stress-strain



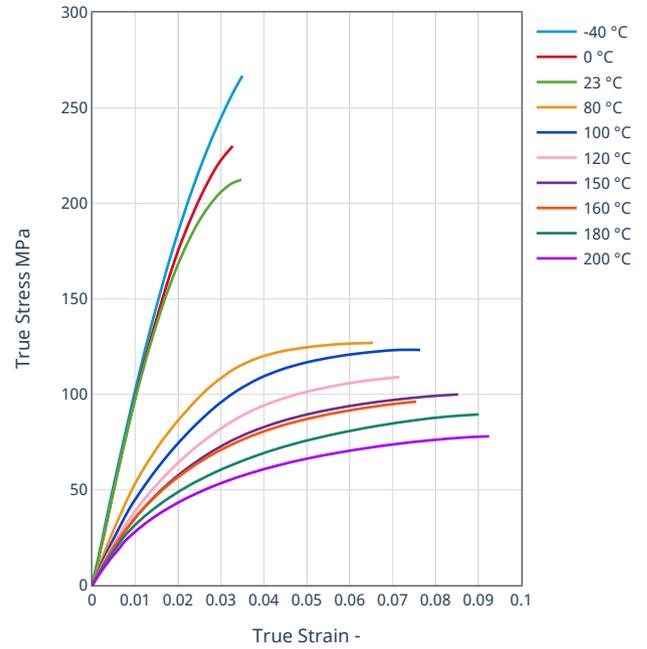
Stress-strain



True stress-true strain



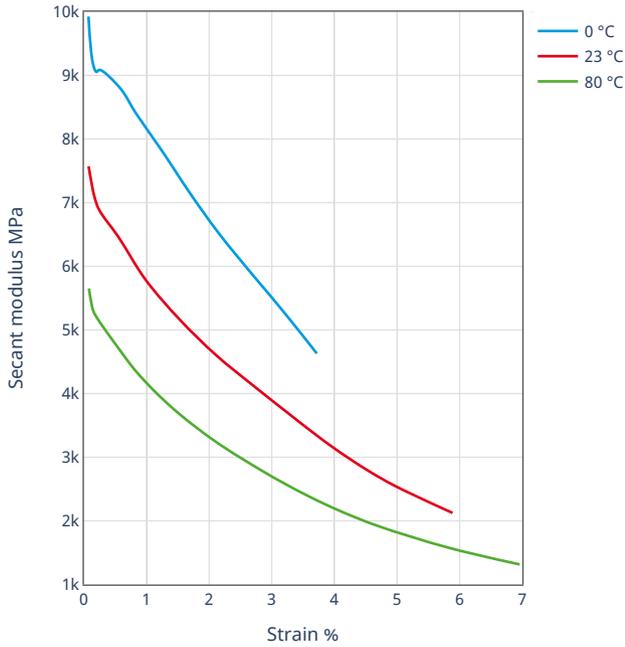
True stress-true strain



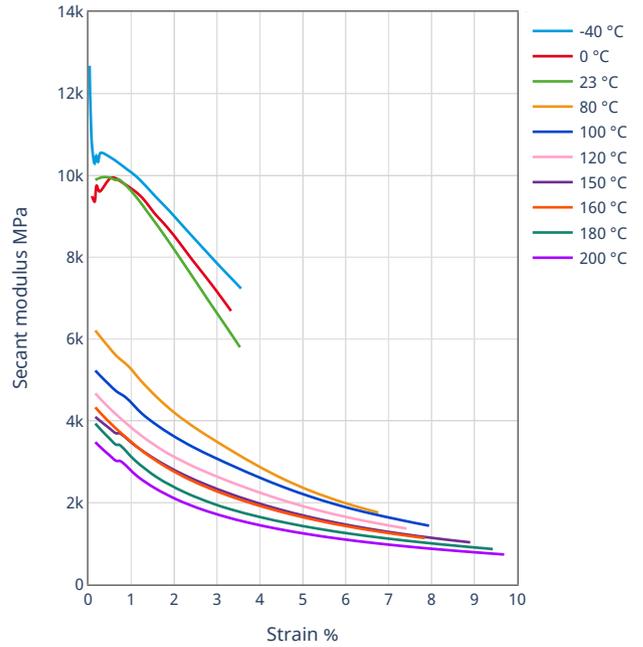
# Akulon® S223-HG6

Envalior

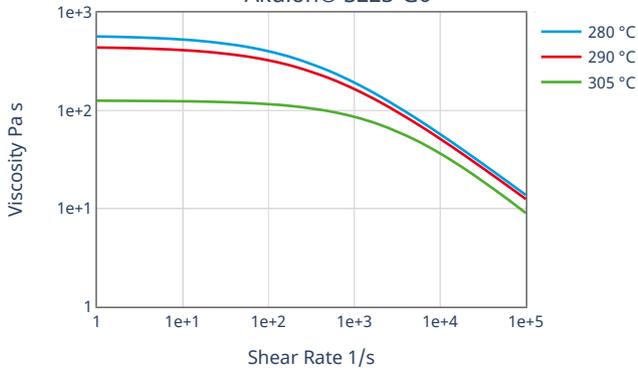
Secant modulus-strain



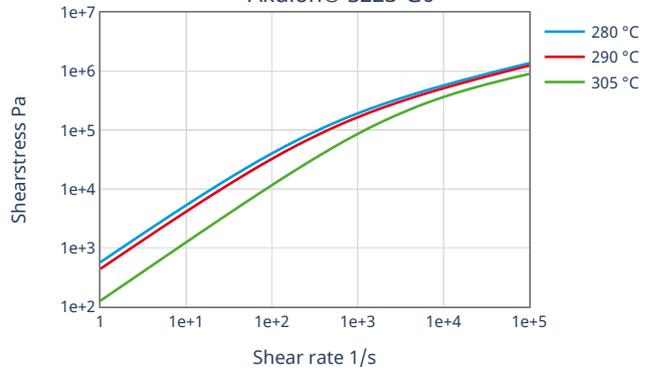
Secant modulus-strain



Viscosity-shear rate  
->Akulon® S223-G6

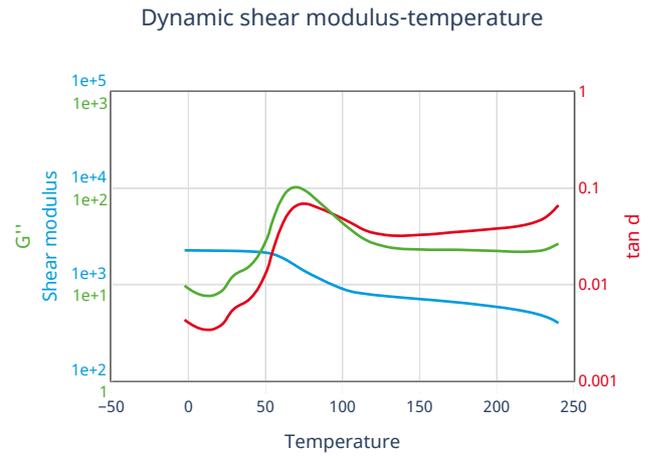
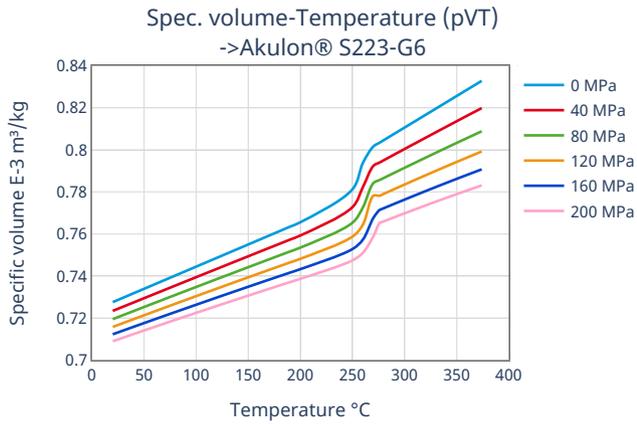


Shearstress-shear rate  
->Akulon® S223-G6



# Akulon® S223-HG6

Envalior



## Processing Information

Injection molding

Injection Molding Recommendations

Steel recommendations for molds screws and barrels

Trouble shooting guideline for injection molding