

TECHNICAL DATA SHEET

Akulon® Ultraflow K-FPG8

Envalior
PA6-I-GF40

Processing

Injection molding

Delivery Form

Pellets

Additives

Release agent

Special Characteristics

High impact or impact modified

Product Text

Product Information

Glass Reinforced, High Flow

ISO 1043 PA6-I-GF40

Processing/Physical Characteristics	Value	Unit	Standard
Melt volume-flow rate, MVR	60	cm ³ /10min	ISO 1133
Temperature	275	°C	
Load	5	kg	
Molding shrinkage, parallel	0.36	%	ISO 294-4, 2577
Molding shrinkage, normal	0.89	%	ISO 294-4, 2577
Mechanical Properties	Value	Unit	Standard
Tensile modulus	11500	MPa	ISO 527
Stress at break	175	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	90	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C	20	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	13	kJ/m ²	ISO 179/1eA
Thermal Properties	Value	Unit	Standard
Melting temperature, 10°C/min	220	°C	ISO 11357-1/-3

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Thermal Properties	Value	Unit	Standard
Temp. of deflection under load, 1.80 MPa	200	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	215	°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	65	E-6/K	ISO 11359-1/-2

Electrical Properties	Value	Unit	Standard
Relative permittivity, 100Hz	3.5		IEC 62631-2-1
Relative permittivity, 1MHz	3.3		IEC 62631-2-1
Dissipation factor, 100Hz	90	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	150	E-4	IEC 62631-2-1
Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
Surface resistivity	1E14	Ohm	IEC 62631-3-2
Electric strength	25	kV/mm	IEC 60243-1
Comparative tracking index	600		IEC 60112

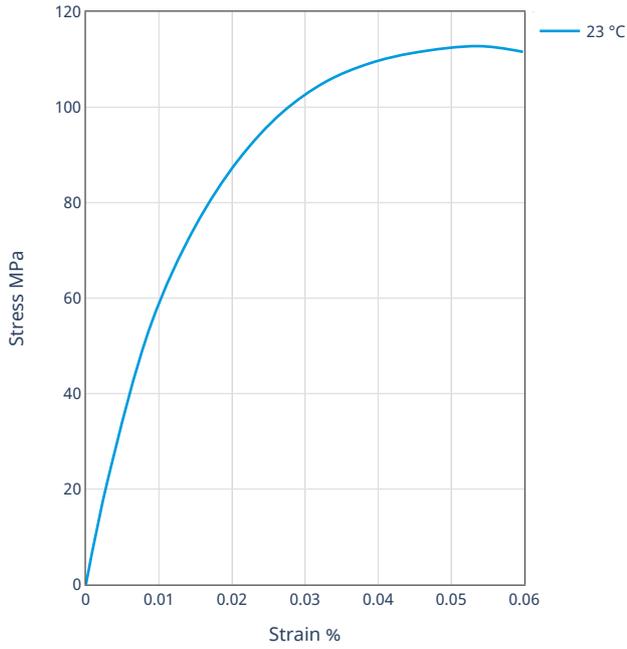
Other Properties	Value	Unit	Standard
Water absorption	5.7	%	Sim. to ISO 62
Humidity absorption	1.7	%	Sim. to ISO 62
Density	1410	kg/m ³	ISO 1183

Diagrams

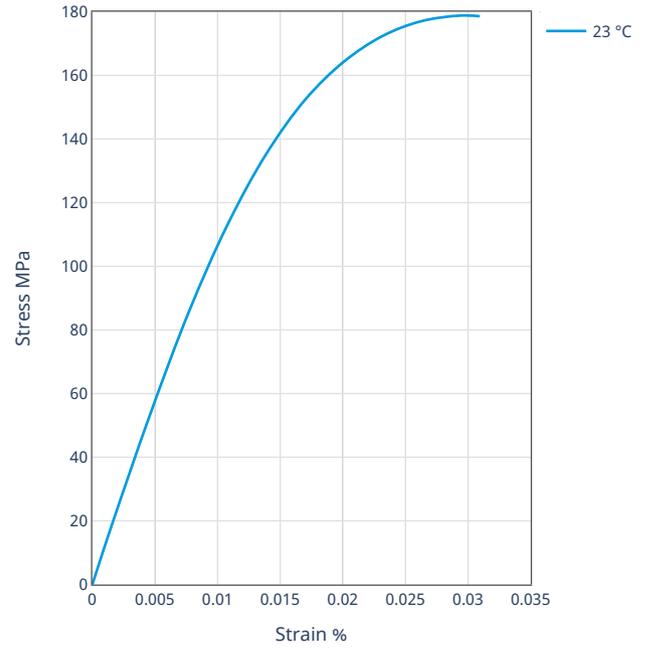
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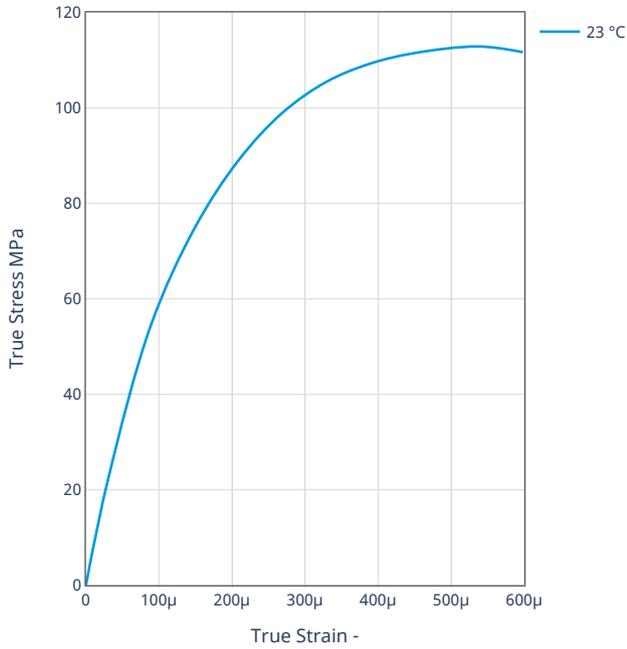
Stress-strain



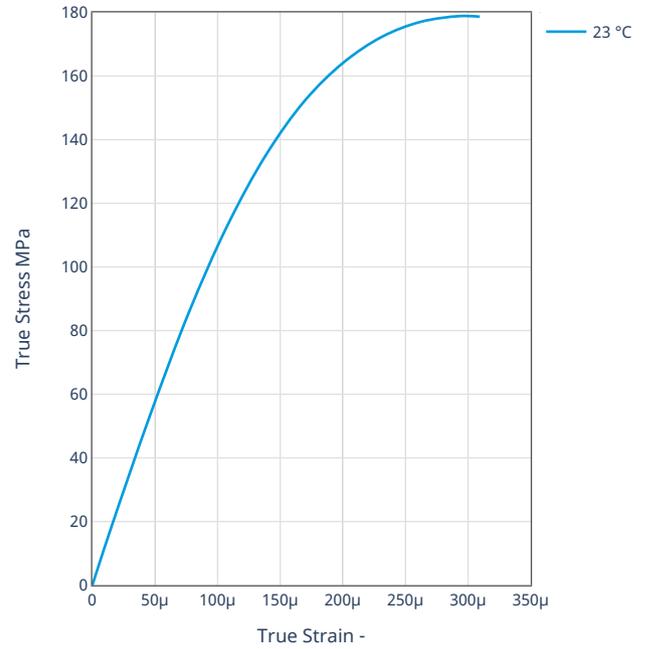
Stress-strain



True stress-true strain



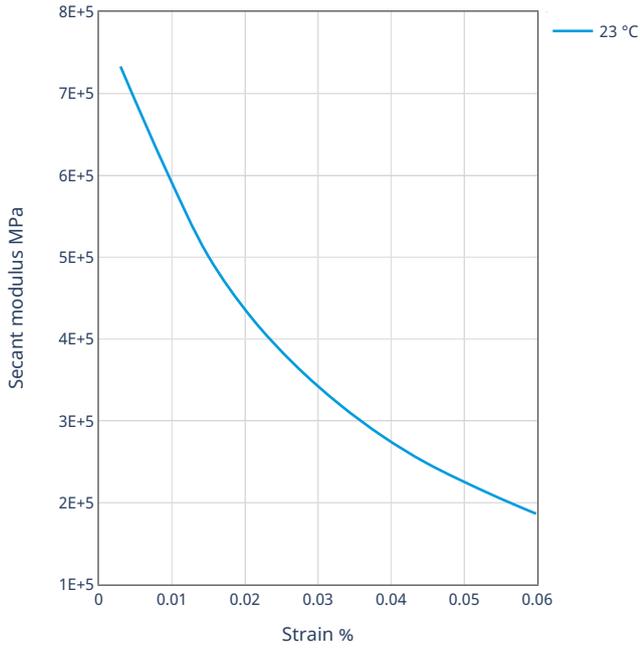
True stress-true strain



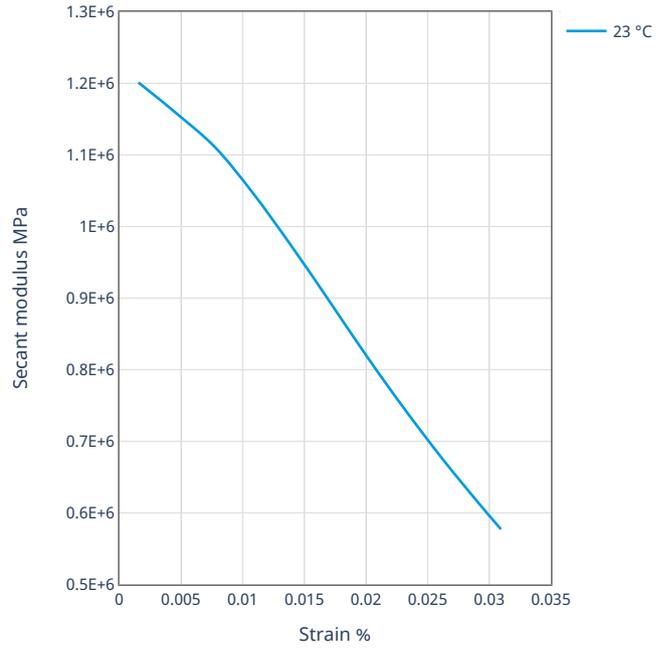
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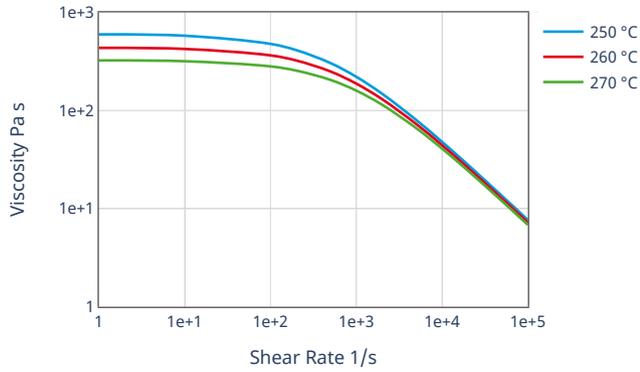
Secant modulus-strain



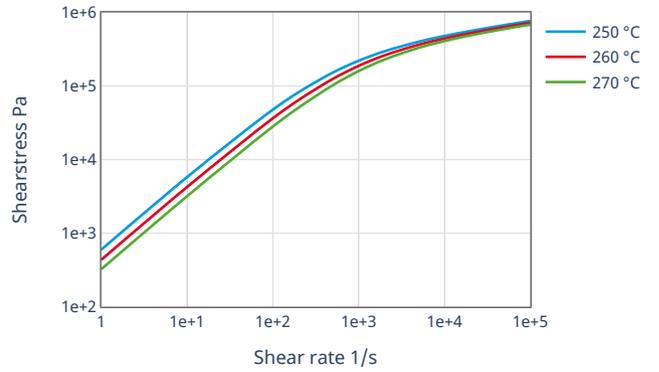
Secant modulus-strain



Viscosity-shear rate

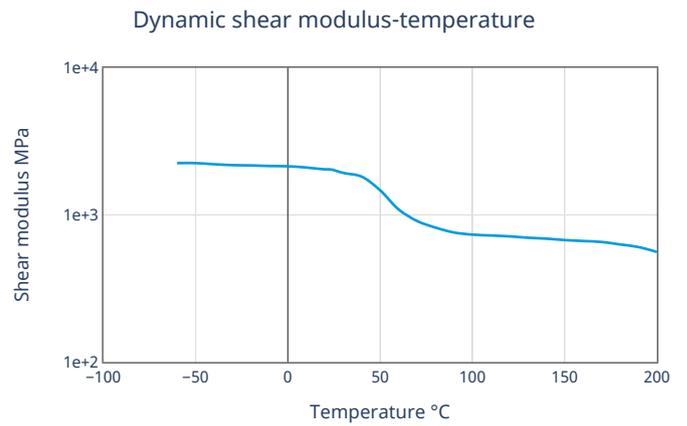
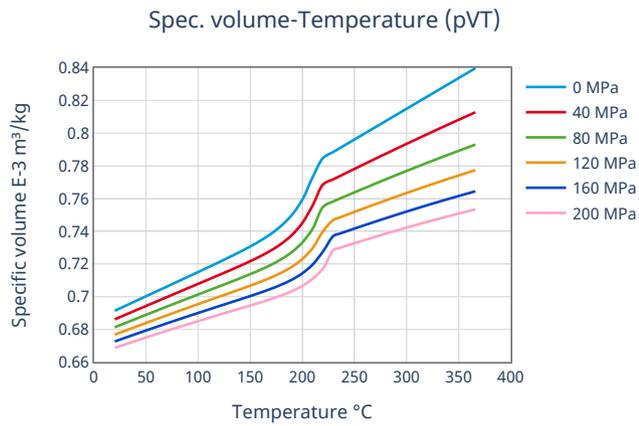


Shearstress-shear rate



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Processing Information

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Injection Molding Recommendations