

TECHNICAL DATA SHEET

# Akulon® Ultraflow K220-HGM44

Envalior  
PA6-(GF+MD)40

**Processing**

Injection molding

**Delivery Form**

Pellets

**Additives**

Release agent

**Special Characteristics**

Heat stabilized or stable to heat

## Product Text

**Product Information**

20% Glass Reinforced, 20% Mineral Reinforced, Heat Stabilized

ISO 1043 PA6-(GF+MD)40

Processing/Physical Characteristics	Value	Unit	Standard
Molding shrinkage, parallel	0.3	%	ISO 294-4, 2577
Molding shrinkage, normal	0.9	%	ISO 294-4, 2577
Density of melt	1187	kg/m <sup>3</sup>	
Thermal conductivity of melt	0.39	W/(m K)	
Spec. heat capacity of melt	2290	J/(kg K)	
Eff. thermal diffusivity	1.44E-7	m <sup>2</sup> /s	

Mechanical Properties	Value	Unit	Standard
Tensile modulus	11000	MPa	ISO 527
Stress at break	135	MPa	ISO 527
Strain at break	2	%	ISO 527
Poisson's ratio	0.35		ISO 527
Charpy impact strength, +23°C	40	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C	35	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, +23°C	7	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30°C	4.5	kJ/m <sup>2</sup>	ISO 179/1eA

# Akulon® Ultraflow K220-HGM44

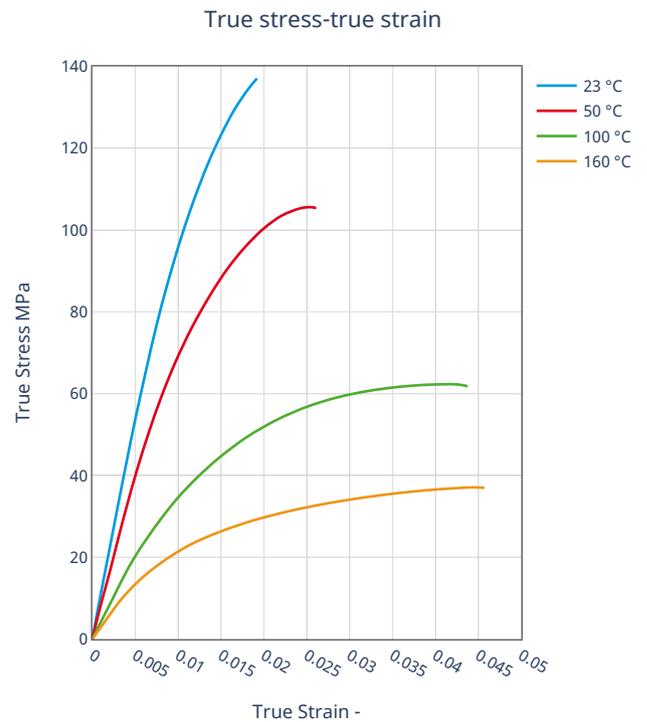
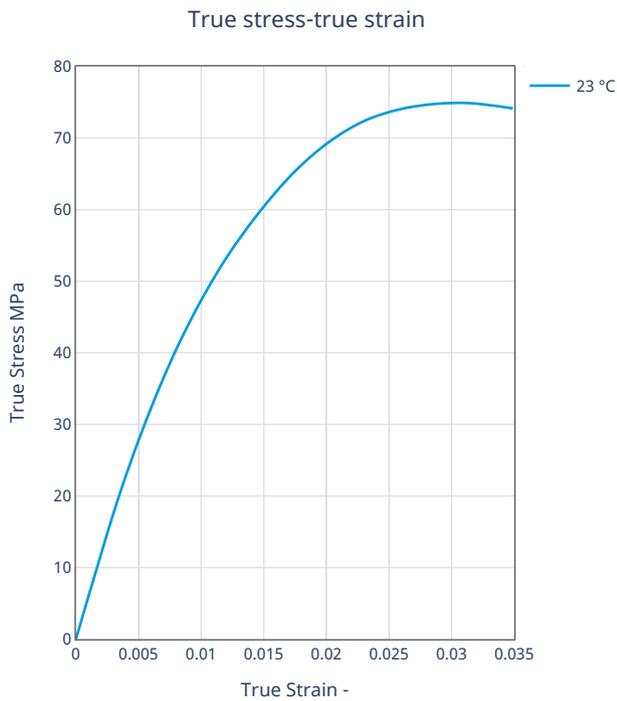
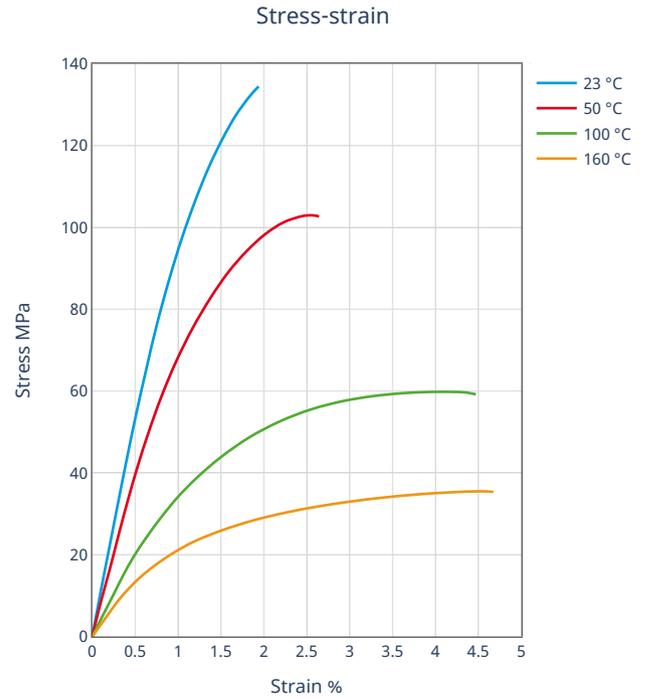
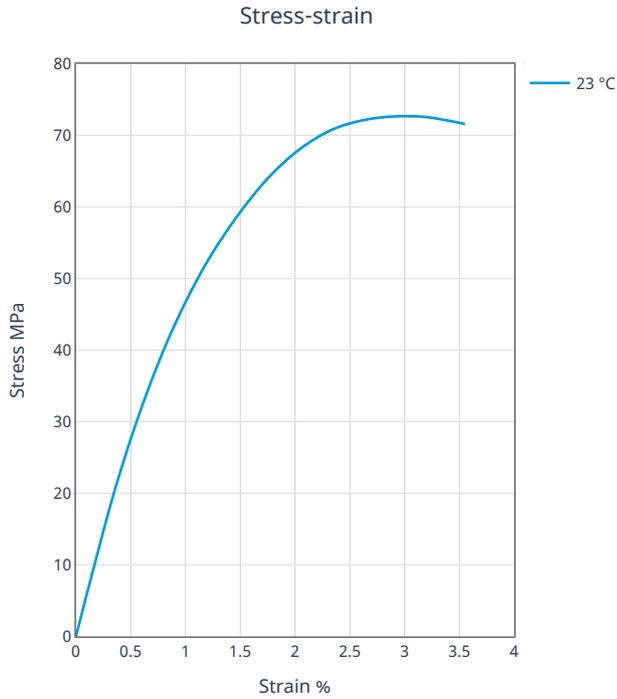
Envalior

Thermal Properties	Value	Unit	Standard
Melting temperature, 10°C/min	220	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.80 MPa	185	°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	30	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	50	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	50	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	130	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	550		IEC 60112
Other Properties	Value	Unit	Standard
Water absorption	5.5	%	Sim. to ISO 62
Humidity absorption	1.6	%	Sim. to ISO 62
Density	1470	kg/m <sup>3</sup>	ISO 1183

## Diagrams

# Akulon® Ultraflow K220-HGM44

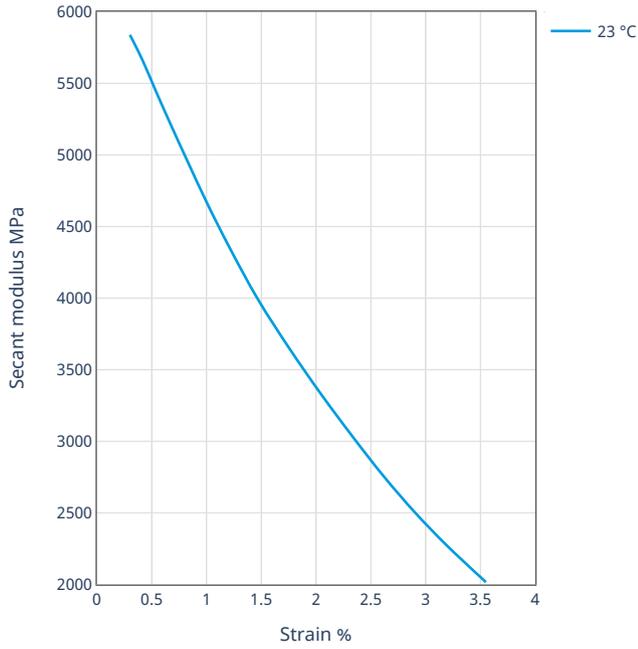
Envalior



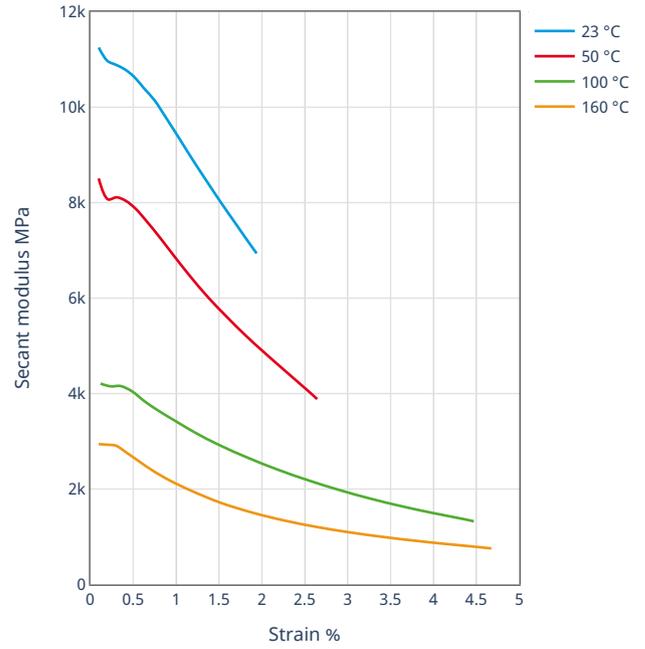
# Akulon® Ultraflow K220-HGM44

Envalior

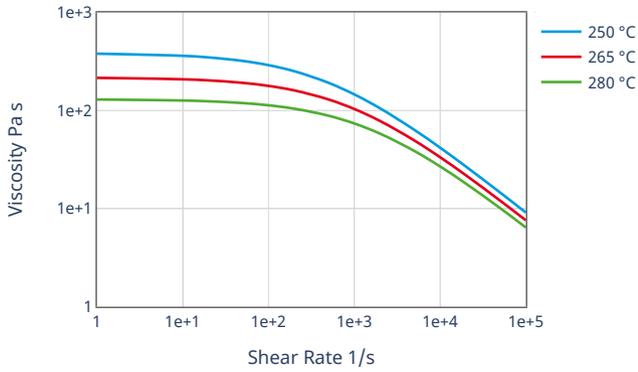
Secant modulus-strain



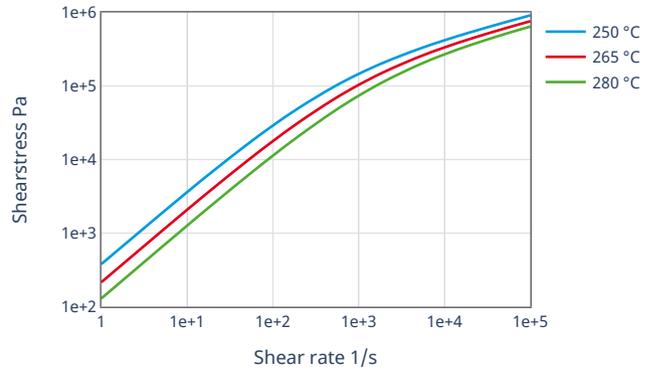
Secant modulus-strain



Viscosity-shear rate

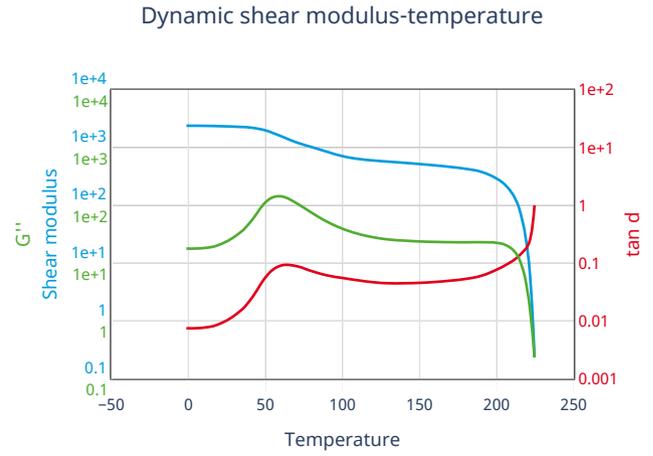
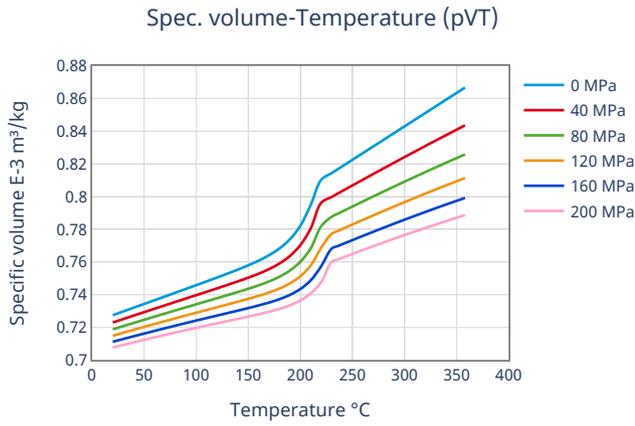


Shearstress-shear rate



# Akulon® Ultraflow K220-HGM44

Envalior



## Processing Information

Injection molding

Injection Molding Recommendations