

**Akulon® Ultraflow K-FPG8**

PA6-I-GF40

DSM Engineering Plastics

**Product Texts**

Glass Reinforced, High Flow

ISO 1043 PA6-I-GF40

[Akulon website](#)

<b>Rheological properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
Melt volume-flow rate, MVR	60 / *	cm <sup>3</sup> /10min	ISO 1133
Temperature	275 / *	°C	ISO 1133
Load	5 / *	kg	ISO 1133
Molding shrinkage, parallel	0.4 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.9 / *	%	ISO 294-4, 2577

<b>Mechanical properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
Tensile Modulus	11500 / 7300	MPa	ISO 527-1/-2
Stress at break	175 / 110	MPa	ISO 527-1/-2
Strain at break	3.5 / 7	%	ISO 527-1/-2
Charpy impact strength (+23°C)	90 / 100	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C	90 / 95	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength (+23°C)	20 / 30	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30°C	13 / 13	kJ/m <sup>2</sup>	ISO 179/1eA

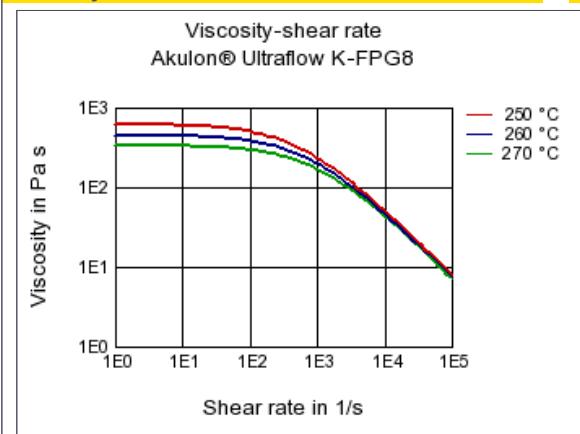
<b>Thermal properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
Melting temperature (10°C/min)	220 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	200 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	215 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	20 / *	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	65 / *	E-6/K	ISO 11359-1/-2

<b>Electrical properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
Relative permittivity, 100Hz	3.5 / 14	-	IEC 60250
Relative permittivity, 1MHz	3.3 / 4.5	-	IEC 60250
Dissipation factor, 100Hz	90 / 3000	E-4	IEC 60250
Dissipation factor, 1MHz	150 / 1200	E-4	IEC 60250
Volume resistivity	>1E13 / 1E11	Ohm*m	IEC 60093
Surface resistivity	* / 1E14	Ohm	IEC 60093
Electric strength	25 / 20	kV/mm	IEC 60243-1
Comparative tracking index	- / 600	-	IEC 60112

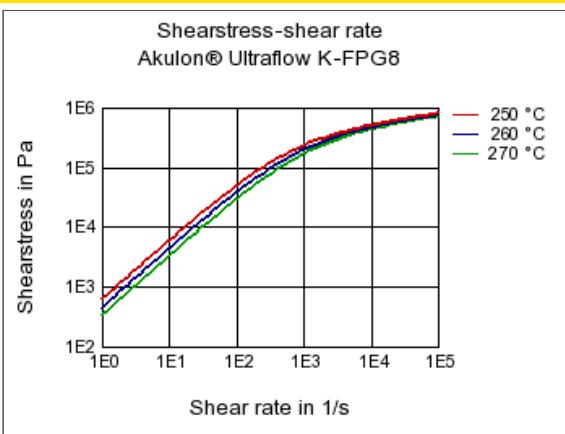
<b>Other properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
Water absorption	5.7 / *	%	Sim. to ISO 62
Humidity absorption	1.7 / *	%	Sim. to ISO 62
Density	1410 / -	kg/m <sup>3</sup>	ISO 1183

## Diagrams

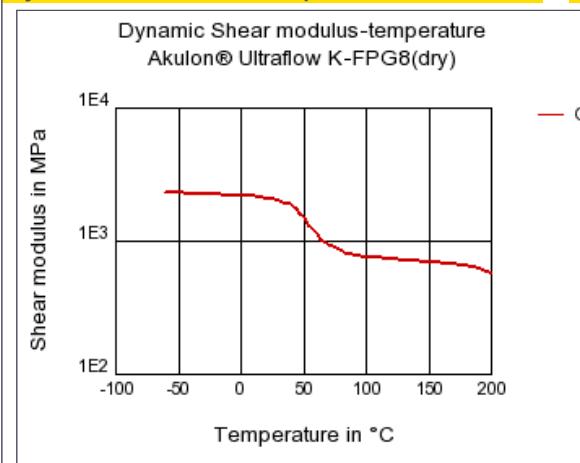
## Viscosity-shear rate



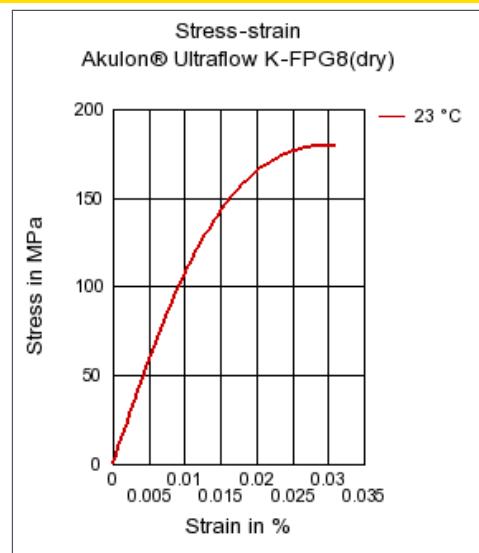
## Shearstress-shear rate



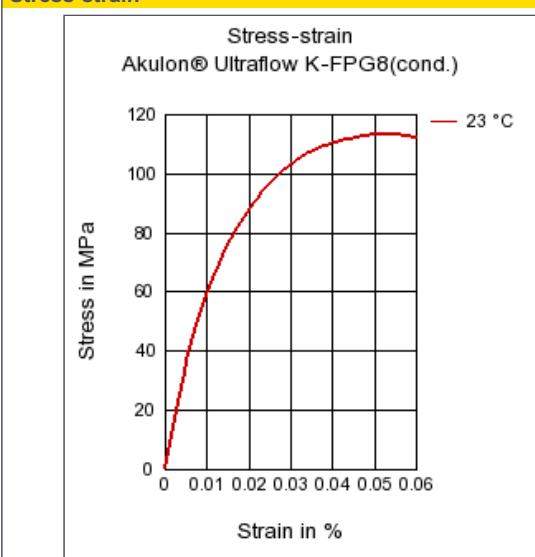
## Dynamic Shear modulus-temperature



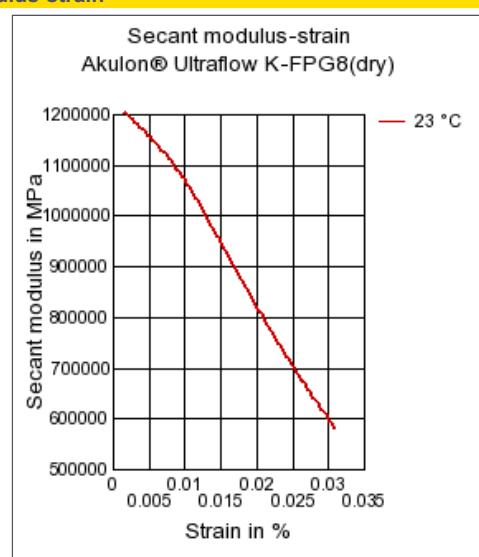
## Stress-strain



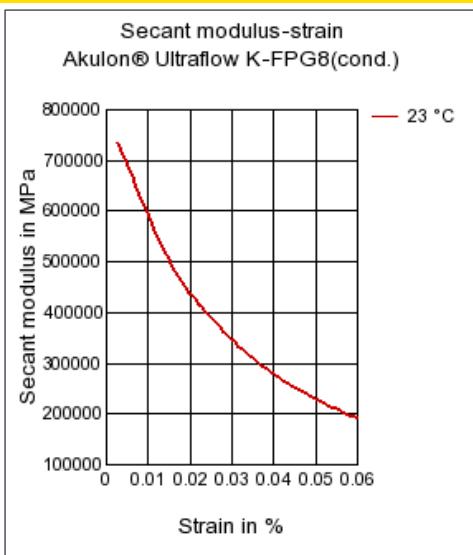
## Stress-strain



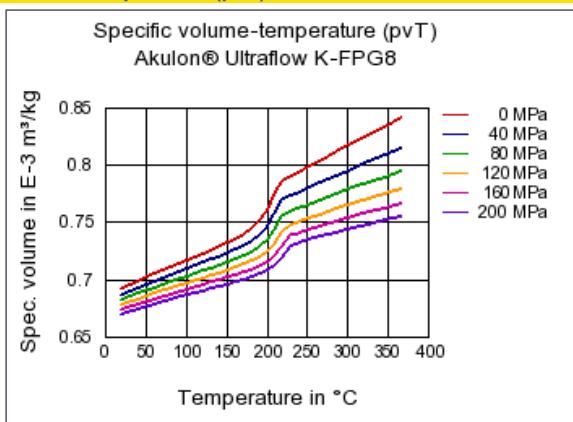
## Secant modulus-strain



## Secant modulus-strain



## Specific volume-temperature (pvT)



## Characteristics

## Processing

Injection Molding

## Additives

Release agent

## Delivery form

Pellets

## Special Characteristics

High impact or impact modified

## Other text information

## Injection Molding

[Injection Molding Recommendations](#)