

**Akulon® Ultraflow K-FG12**

PA6-GF60

DSM Engineering Plastics

**Product Texts**

60% Glass Reinforced, High Flow

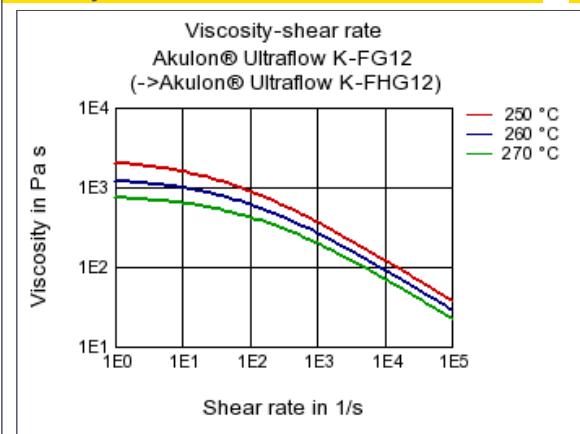
ISO 1043 PA6-GF60

[Akulon website](#)

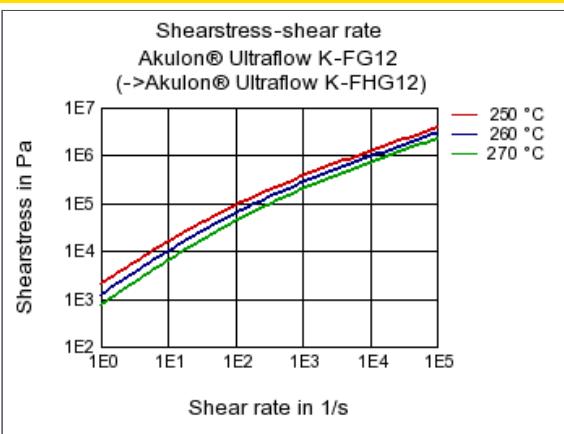
<b>Rheological properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
Molding shrinkage, parallel	0.2 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.8 / *	%	ISO 294-4, 2577
<b>Mechanical properties</b>			
<b>ISO Data</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
	Tensile Modulus	20000 / 14000	MPa
	Stress at break	235 / 160	MPa
	Strain at break	2.2 / 4	%
	Charpy impact strength (+23°C)	90 / 100	kJ/m <sup>2</sup>
	Charpy impact strength, -30°C	85 / 85	kJ/m <sup>2</sup>
	Charpy notched impact strength (+23°C)	15 / 25	kJ/m <sup>2</sup>
	Charpy notched impact strength, -30°C	12 / 12	kJ/m <sup>2</sup>
<b>Thermal properties</b>			
<b>ISO Data</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
	Melting temperature (10°C/min)	220 / *	°C
	Temp. of deflection under load (1.80 MPa)	210 / *	°C
	Temp. of deflection under load (0.45 MPa)	220 / *	°C
	Coeff. of linear therm. expansion, parallel	10 / *	E-6/K
	Coeff. of linear therm. expansion, normal	40 / *	E-6/K
	Burning behav. at 1.5 mm nom. thickn.	HB / *	class
<b>Other properties</b>			
<b>ISO Data</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
	Water absorption	3.6 / *	%
	Humidity absorption	1 / *	%
	Density	1660 / -	kg/m <sup>3</sup>
<b>Rheological calculation properties</b>			
<b>ISO Data</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
	Density of melt	1380	kg/m <sup>3</sup>
	Thermal conductivity of melt	0.39	W/(m K)
	Spec. heat capacity of melt	1720	J/(kg K)
	Eff. thermal diffusivity	1.64E-7	m <sup>2</sup> /s

## Diagrams

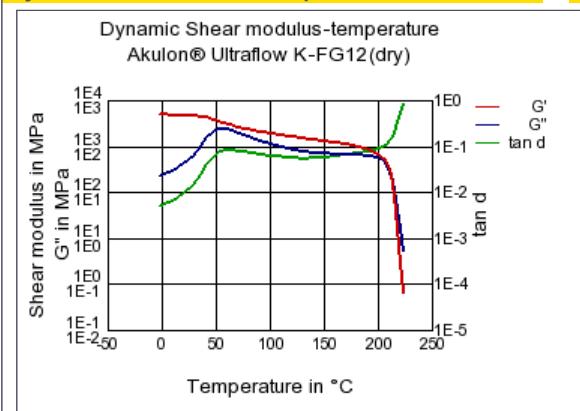
## Viscosity-shear rate



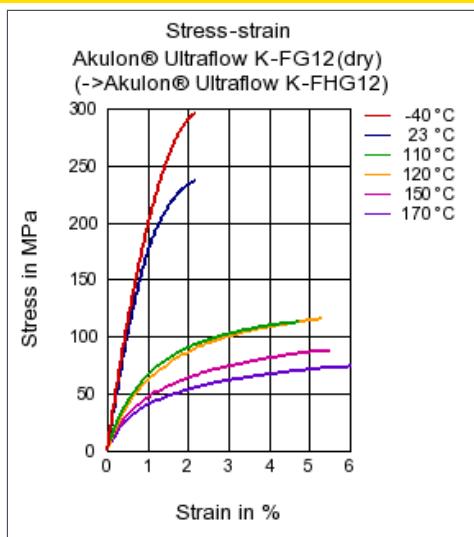
## Shearstress-shear rate



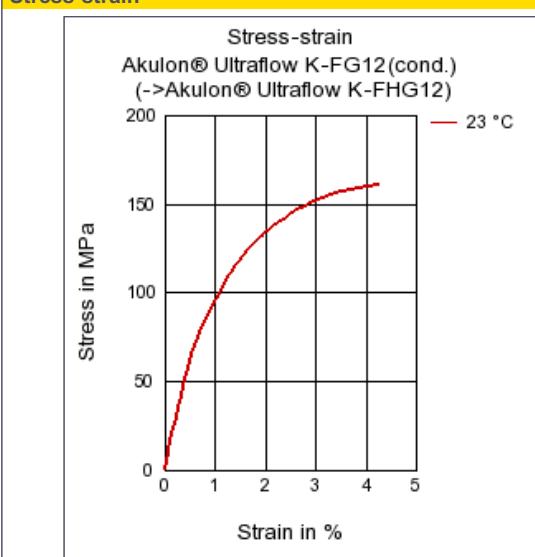
## Dynamic Shear modulus-temperature



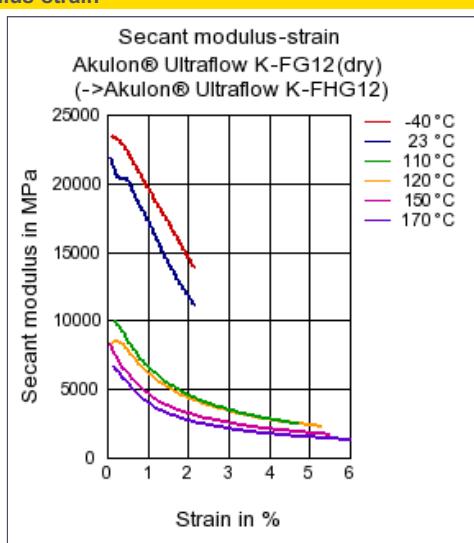
## Stress-strain



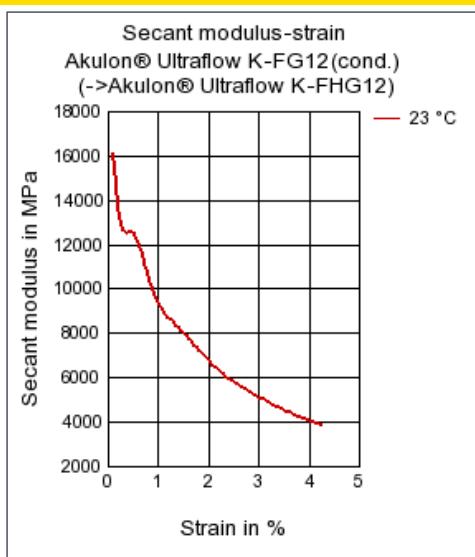
## Stress-strain



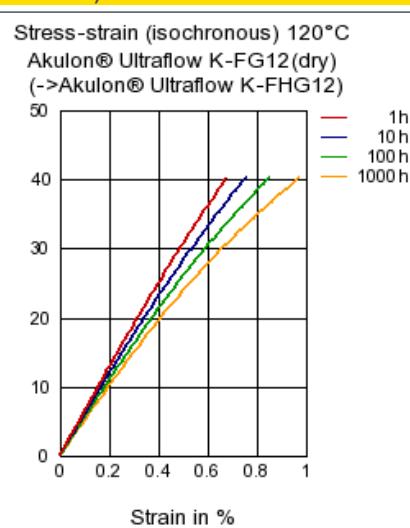
## Secant modulus-strain



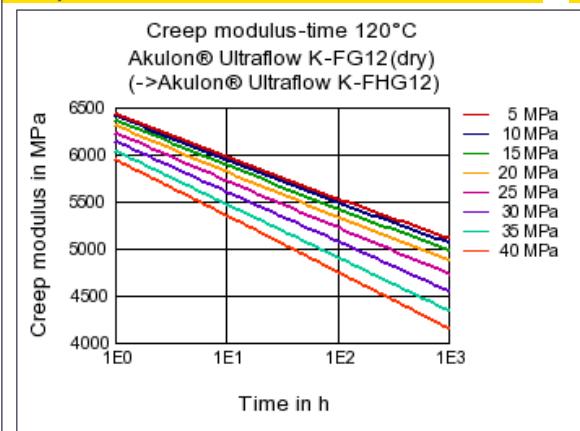
## Secant modulus-strain



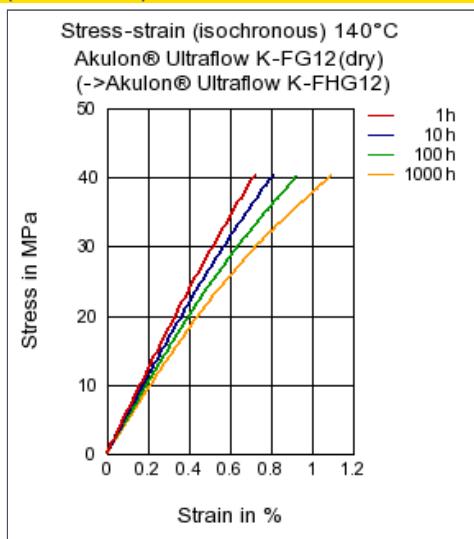
## Stress-strain (isochronous) 120°C



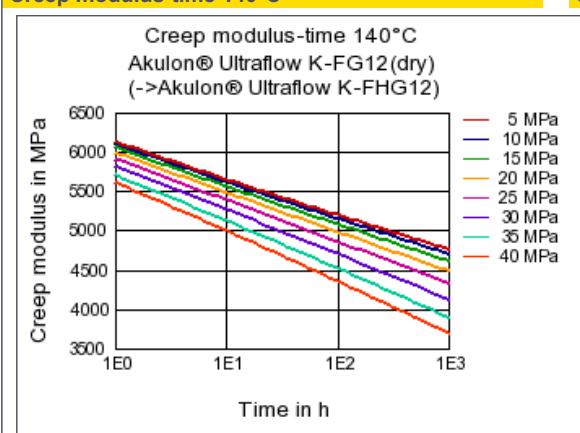
## Creep modulus-time 120°C



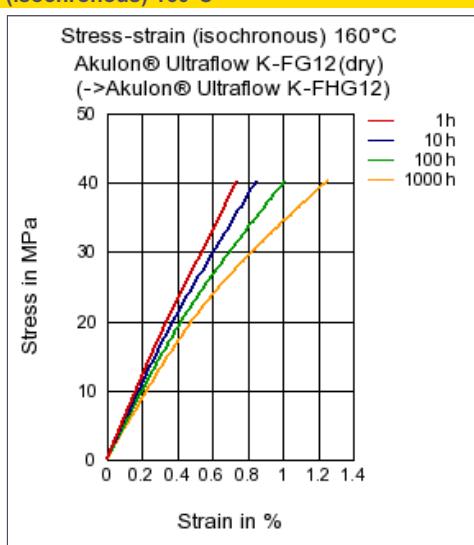
## Stress-strain (isochronous) 140°C



## Creep modulus-time 140°C



## Stress-strain (isochronous) 160°C

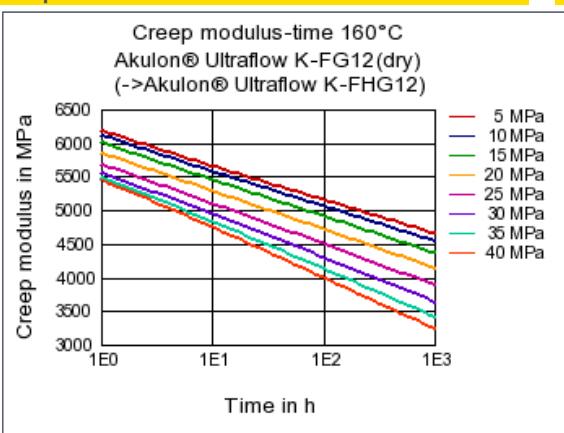


## Akulon® Ultraflow K-FG12

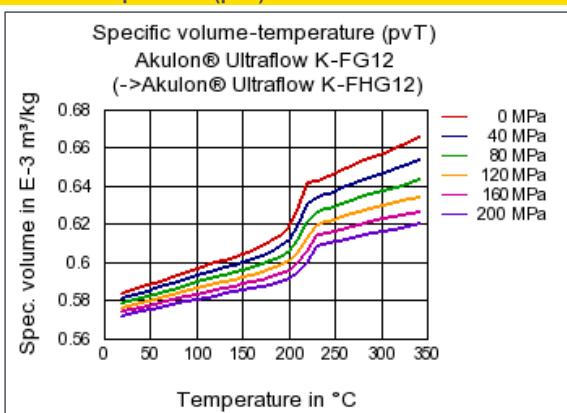
PA6-GF60

DSM Engineering Plastics

### Creep modulus-time 160°C



### Specific volume-temperature (pvT)



### Characteristics

#### Processing

Injection Molding

#### Delivery form

Pellets

### Other text information

#### Injection Molding

[Injection Molding Recommendations](#)