


**Akulon® Ultraflow K-FHGR24**

PA6-(GF+GB)30

DSM Engineering Plastics

**Product Texts**

10% Glass Reinforced, 20% Glass Beads Reinforced, Heat Stabilized, High Flow

ISO 1043 PA6-(GF+GB)30

[Akulon website](#)

Rheological properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
Melt volume-flow rate, MVR	18 / *	cm <sup>3</sup> /10min	ISO 1133
Temperature	250 / *	°C	ISO 1133
Load	2.16 / *	kg	ISO 1133
<b>Mechanical properties</b>			
<b>ISO Data</b>			
Tensile Modulus	6000 / 3500	MPa	ISO 527-1/-2
Stress at break	85 / 55	MPa	ISO 527-1/-2
Strain at break	2.5 / 5	%	ISO 527-1/-2
Charpy impact strength (+23°C)	21 / -	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C	21 / -	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength (+23°C)	4 / 6	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30°C	4 / 4	kJ/m <sup>2</sup>	ISO 179/1eA
<b>Thermal properties</b>			
<b>ISO Data</b>			
Melting temperature (10°C/min)	220 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	190 / *	°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	35 / *	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	IEC 60695-11-10
UL recognition	UL / *	-	-
Burning behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	IEC 60695-11-10
UL recognition	UL / *	-	-
<b>Electrical properties</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	50 / 3000	E-4	IEC 60250
Dissipation factor, 1MHz	150 / 1200	E-4	IEC 60250
Volume resistivity	1E12 / 1E10	Ohm*m	IEC 60093
Surface resistivity	* / 1E13	Ohm	IEC 60093
Electric strength	35 / 25	kV/mm	IEC 60243-1
Comparative tracking index	350 / 350	-	IEC 60112
<b>Other properties</b>			
<b>ISO Data</b>			
Water absorption	6.5 / *	%	Sim. to ISO 62
Humidity absorption	1.9 / *	%	Sim. to ISO 62
Density	1350 / -	kg/m <sup>3</sup>	ISO 1183

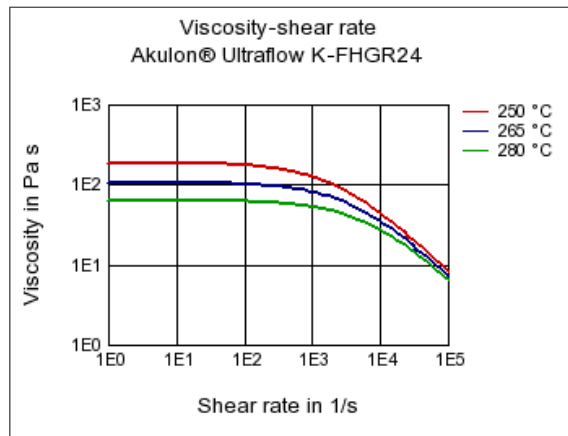
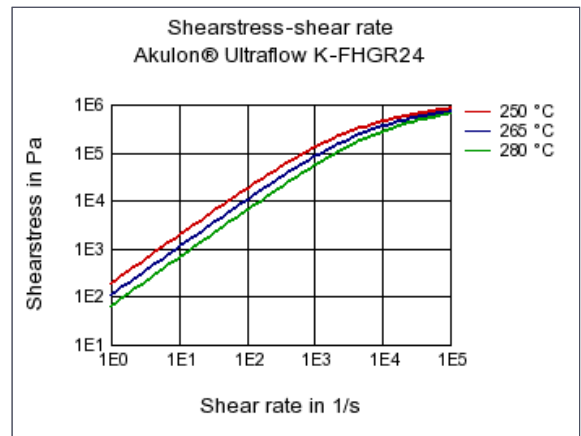
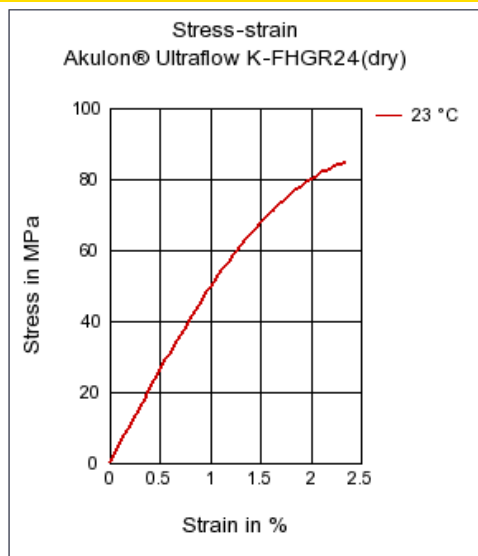
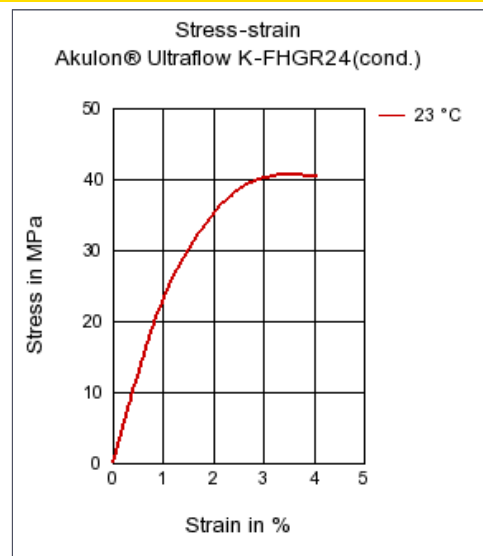
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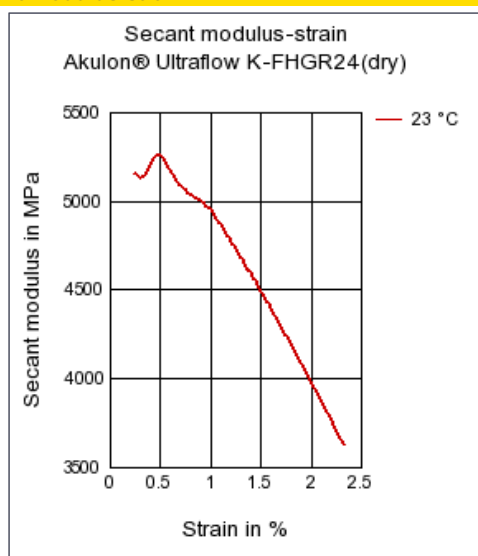
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**Rheological calculation properties****ISO Data**

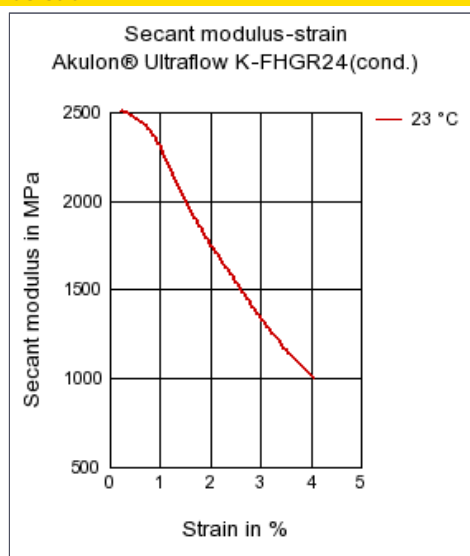
	Value	Unit	Test Standard
Density of melt	1160	kg/m <sup>3</sup>	-
Thermal conductivity of melt	0.29	W/(m K)	-
Spec. heat capacity of melt	2230	J/(kg K)	-
Eff. thermal diffusivity	1.43E-7	m <sup>2</sup> /s	-

**Diagrams****Viscosity-shear rate****Shearstress-shear rate****Stress-strain****Stress-strain**

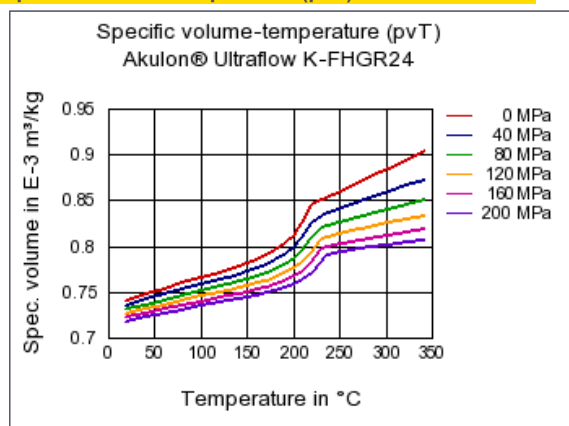
## Secant modulus-strain



## Secant modulus-strain



## Specific volume-temperature (pvT)



## Characteristics

## Processing

Injection Molding

## Additives

Release agent

## Delivery form

Pellets

## Special Characteristics

Heat stabilized or stable to heat

## Other text information

## Injection Molding

[Injection Molding Recommendations](#)