

Akulon® Ultraflow K-FHG6

PA6-GF30

DSM Engineering Plastics

Product Texts

30% Glass Reinforced, Heat Stabilized, High Flow

ISO 1043 PA6-GF30

[Akulon website](#)

Rheological properties	dry / cond	Unit	Test Standard
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ISO Data			
Molding shrinkage, parallel	0.3 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	1.1 / *	%	ISO 294-4, 2577

Mechanical properties	dry / cond	Unit	Test Standard
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ISO Data			
Tensile Modulus	9350 / 5700	MPa	ISO 527-1/-2
Stress at break	160 / 105	MPa	ISO 527-1/-2
Strain at break	3 / 7	%	ISO 527-1/-2
Charpy impact strength (+23°C)	85 / 90	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	65 / 65	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	14 / 22	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	10 / 10	kJ/m ²	ISO 179/1eA

Thermal properties	dry / cond	Unit	Test Standard
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ISO Data			
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)	220 / *	°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	70 / *	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.6 / *	mm	IEC 60695-11-10

Electrical properties	dry / cond	Unit	Test Standard
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ISO Data			
Relative permittivity, 100Hz	3.5 / 14	-	IEC 60250
Relative permittivity, 1MHz	3.3 / 5	-	IEC 60250
Dissipation factor, 100Hz	50 / 3000	E-4	IEC 60250
Dissipation factor, 1MHz	150 / 1200	E-4	IEC 60250
Volume resistivity	>1E13 / 1E12	Ohm*m	IEC 60093
Surface resistivity	* / 1E13	Ohm	IEC 60093
Comparative tracking index	- / 500	-	IEC 60112

Other properties	dry / cond	Unit	Test Standard
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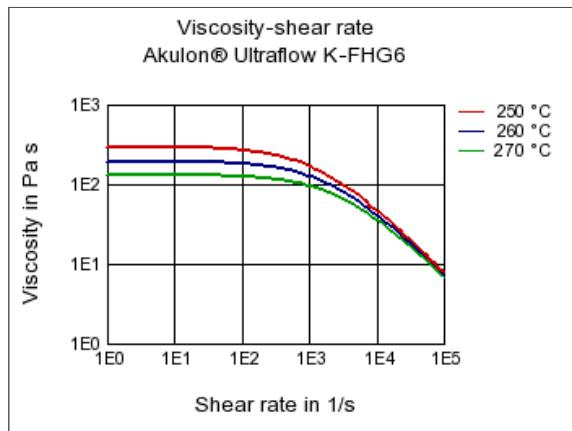
ISO Data			
Water absorption	6 / *	%	Sim. to ISO 62
Humidity absorption	1.8 / *	%	Sim. to ISO 62
Density	1350 / -	kg/m ³	ISO 1183

Rheological calculation properties	Value	Unit	Test Standard
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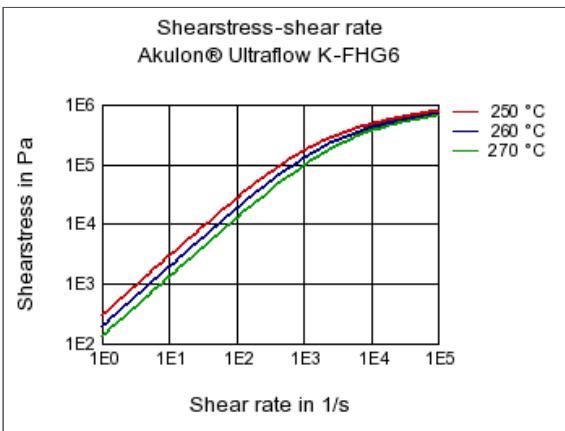
ISO Data			
Density of melt	1120	kg/m ³	-
Thermal conductivity of melt	0.27	W/(m K)	-
Spec. heat capacity of melt	2250	J/(kg K)	-
Eff. thermal diffusivity	1.08E-7	m ² /s	-

Diagrams

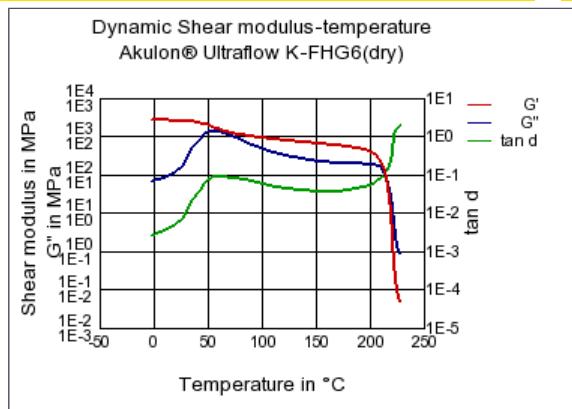
Viscosity-shear rate



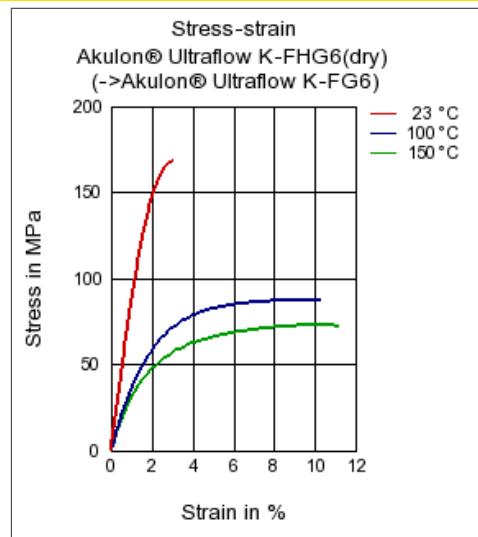
Shearstress-shear rate



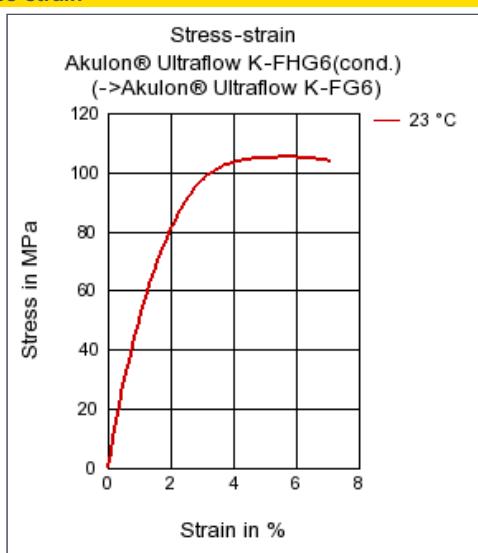
Dynamic Shear modulus-temperature



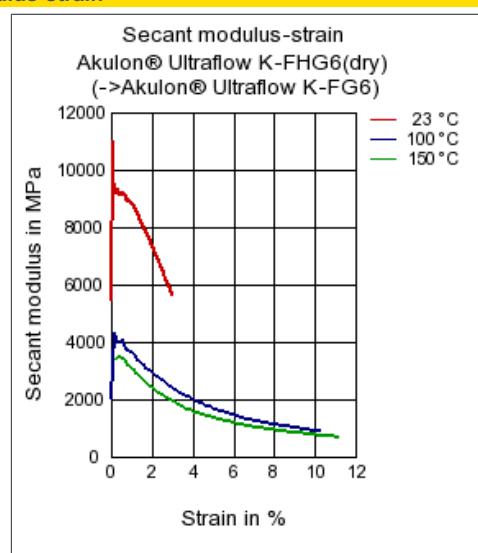
Stress-strain



Stress-strain



Secant modulus-strain

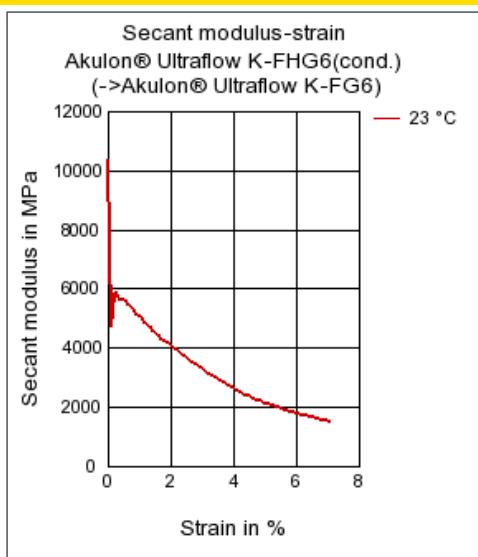


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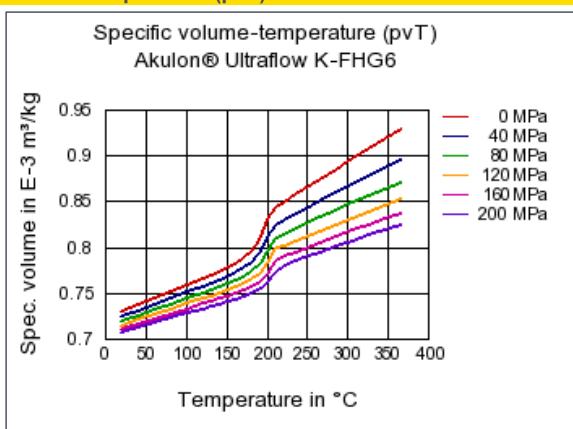
PA6-GF30

DSM Engineering Plastics

Secant modulus-strain



Specific volume-temperature (pvT)



Characteristics

Processing

Injection Molding

Special Characteristics

Heat stabilized or stable to heat

Delivery form

Pellets

Other text information

Injection Molding

[Injection Molding Recommendations](#)