

## DSM Akulon® Ultraflow™ K-FHG6 Nylon 6-30% Glass Reinforced (European Grade) (Dry)

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6 , 30% Glass Fiber Filled

### Material Notes:

The Akulon® product portfolio is engineered for optimum performance to suit different processing techniques and end use markets. Akulon Nylon 6 is used for extrusion applications including barrier film, stock shapes, convoluted tubes, and monofilament. Akulon XP is a high-productivity, high-performance PA6 grade for film extrusion processes. Medium viscosity, unreinforced or reinforced Akulon grades are used for various injection molding and blow molding applications. Akulon® Ultraflow® is a high-productivity, high-performance PA6 family for molding processes. Key applications for Akulon: Automotive: Intake manifold, Engine, Powertrain, Airbag containers, Exterior trim, Interior trim, Electrical components and connectors Consumer durables: Power tools, Lawn and garden tools, Small appliances, Sports and leisure equipment, Furniture, Industrial Goods, Transportation E&E: Low voltage switch gear/power distribution, Lighting, Power connectors Film: Specialty and barrier films Information provided by DSM.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_DSM-Akulon-Ultraflow-K-FHG6-Nylon-6-30-Glass-Reinforced-European-Grade-Dry.php](http://www.lookpolymers.com/polymer_DSM-Akulon-Ultraflow-K-FHG6-Nylon-6-30-Glass-Reinforced-European-Grade-Dry.php)

Physical Properties	Metric	English	Comments
Density	1.33 g/cc	0.0480 lb/in <sup>3</sup>	ISO 1183
Water Absorption	6.0 %	6.0 %	Sim. to ISO 62
Moisture Absorption at Equilibrium	1.8 %	1.8 %	Humidity Absorption; Sim. to ISO 62
Linear Mold Shrinkage, Flow	0.0030 cm/cm	0.0030 in/in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.011 cm/cm	0.011 in/in	ISO 294-4

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	175 MPa	25400 psi	ISO 527-1/-2
Elongation at Break	3.5 %	3.5 %	ISO 527-1/-2
Tensile Modulus	9.50 GPa	1380 ksi	ISO 527-1/-2
Flexural Strength	270 MPa	39200 psi	ISO 178
Flexural Modulus	8.60 GPa	1250 ksi	ISO 178
Charpy Impact Unnotched	6.50 J/cm <sup>2</sup>	30.9 ft-lb/in <sup>2</sup>	ISO 179/1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact Unnotched	9.00 J/cm <sup>2</sup>	42.8 ft-lb/in <sup>2</sup>	ISO 179/1eU
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact, Notched	1.10 J/cm <sup>2</sup>	5.24 ft-lb/in <sup>2</sup>	ISO 179/1eA

Mechanical Properties	@Temperature -30.0 °C Metric	@Temperature -22.0 °F English	Comments
	1.40 J/cm <sup>2</sup>	6.66 ft-lb/in <sup>2</sup>	ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	20.0 µm/m-°C	11.1 µin/in-°F	ISO 11359-1/-2
	@Temperature 20.0 °C	@Temperature 68.0 °F	
CTE, linear, Transverse to Flow	70.0 µm/m-°C	38.9 µin/in-°F	ISO 11359-1/-2
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Melting Point	220 °C	428 °F	10°C/min; ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	220 °C	428 °F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	210 °C	410 °F	ISO 75-1/-2
Flammability, UL94	HB	HB	IEC 60695-11-10
	@Thickness 1.60 mm	@Thickness 0.0630 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+15 ohm-cm	>= 1.00e+15 ohm-cm	IEC 60093
Dielectric Constant	3.3	3.3	IEC 60250
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Dissipation Factor	3.5	3.5	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dissipation Factor	0.0050	0.0050	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Comparative Tracking Index	0.015	0.015	IEC 60250
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Comparative Tracking Index	500 V	500 V	IEC 60112

Descriptive Properties	Value	Comments
Heat stabilized or stable to heat	Yes	
Injection molding	Yes	
With Fillers	Yes	

## **Contact Songhan Plastic Technology Co.,Ltd.**

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