

## DSM Akulon® Ultraflow™ K-FG12 Nylon 6-60% Glass Reinforced (European Grade) (Dry) (discontinued \*\*)

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6 , 60% 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-FG12-Nylon-6-60-Glass-Reinforced-European-Grade-Dry-nspsdiscontinued-.php](http://www.lookpolymers.com/polymer_DSM-Akulon-Ultraflow-K-FG12-Nylon-6-60-Glass-Reinforced-European-Grade-Dry-nspsdiscontinued-.php)

Physical Properties	Metric	English	Comments
Density	1.66 g/cc	0.0600 lb/in <sup>3</sup>	ISO 1183
Water Absorption	3.6 %	3.6 %	Sim. to ISO 62
Moisture Absorption at Equilibrium	1.0 %	1.0 %	Humidity Absorption; Sim. to ISO 62
Linear Mold Shrinkage, Flow	0.0020 cm/cm	0.0020 in/in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.0080 cm/cm	0.0080 in/in	ISO 294-4

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	235 MPa	34100 psi	ISO 527-1/-2
Elongation at Break	2.2 %	2.2 %	ISO 527-1/-2
Tensile Modulus	20.0 GPa	2900 ksi	ISO 527-1/-2
Flexural Strength	360 MPa	52200 psi	ISO 178
Flexural Modulus	16.5 GPa	2390 ksi	ISO 178
Charpy Impact Unnotched	8.50 J/cm <sup>2</sup>	40.5 ft-lb/in <sup>2</sup>	ISO 179/1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	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	
	1.20 J/cm <sup>2</sup>	5.71 ft-lb/in <sup>2</sup>	

Charpy Impact, Notched Mechanical Properties	Metric @ Temperature -30.0 °C	English @ Temperature -22.0 °F	ISO 179/1eA Comments
	1.50 J/cm <sup>2</sup>	7.14 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	10.0 μm/m-°C @Temperature 20.0 °C	5.56 μin/in-°F @Temperature 68.0 °F	ISO 11359-1/-2
CTE, linear, Transverse to Flow	40.0 μm/m-°C @Temperature 20.0 °C	22.2 μin/in-°F @Temperature 68.0 °F	ISO 11359-1/-2
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 @Thickness 1.60 mm	HB @Thickness 0.0630 in	IEC 60695-11-10

Descriptive Properties	Value	Comments
Injection molding	Yes	
With Fillers	Yes	

## Contact Songhan Plastic Technology Co.,Ltd.

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