

## DSM Akulon® K-FHGM35 (Dry) 40% Glass/Mineral Reinforced, Nylon 6 (North America) (discontinued \*\*)

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6, Glass/Mineral Reinforced

### Material Notes:

Description: The Akulon portfolio is engineered for optimum performance to suit different processing techniques and end use markets. Unfilled Extrusion Resins Akulon resins are available with melt viscosities to suit all extrusion processes: barrier and coating film, tube and hose, monofilament, stock shapes. Akulon resins are characterized by: consistent quality high purity for film applications, low gel contents. Molding Resins Suited to all engineering demands: Unfilled low and medium viscosity grades Toughened unfilled grades Glass reinforced from 20-45% filled Low warpage reinforced grades Flame retardant; UL V0 rated and glow wire types Halogen free FR grades Blow moldable materials Laser markable resins Laser weldable, high burst pressure grades Toughened, reinforced resins High stiffness grades for metal replacement Akulon Ultraflow resins have high flow with mechanical properties similar to standard materials. Exceptional flow allows: productivity gains in molding lower built in stresses better surface appearances system cost reductions Applications for Molding resins There is an Akulon resin available suitable for any application requiring polyamides. Key areas where DSM has specific application knowledge are Automotive Under the hood and engine components Exterior and interior applications Electrical components and connectors Electrical Low voltage power distribution Lighting Power connectors Consumer Durables Power and lawn and garden tools Small Appliances Sports and leisure equipment Furniture accessories Industrial Goods Transportation (railways) Information provided by DSM.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_DSM-Akulon-K-FHGM35-Dry-40-GlassMineral-Reinforced-Nylon-6-North-America-nbspdiscontinued-.php](http://www.lookpolymers.com/polymer_DSM-Akulon-K-FHGM35-Dry-40-GlassMineral-Reinforced-Nylon-6-North-America-nbspdiscontinued-.php)

Physical Properties	Metric	English	Comments
Density	1.50 g/cc	0.0542 lb/in <sup>3</sup>	ISO 1183
Water Absorption	5.5 %	5.5 %	Sim. to ISO 62
Moisture Absorption at Equilibrium	1.7 %	1.7 %	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	0.0090 cm/cm	0.0090 in/in	ISO 294-4

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	120 MPa	17400 psi	ISO 527-1/-2
Elongation at Break	2.5 %	2.5 %	ISO 527-1/-2
Tensile Modulus	9.00 GPa	1310 ksi	ISO 527-1/-2
Flexural Modulus	7.50 GPa	1090 ksi	ISO 178
Charpy Impact Unnotched	3.00 J/cm <sup>2</sup>	14.3 ft-lb/in <sup>2</sup>	ISO 179/1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	3.50 J/cm <sup>2</sup>	16.7 ft-lb/in <sup>2</sup>	

Mechanical Properties	Metric	English	ISO 179/1eJ Comments
Charpy Impact, Notched	0.400 J/cm <sup>2</sup>	1.90 ft-lb/in <sup>2</sup>	ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	0.500 J/cm <sup>2</sup>	2.38 ft-lb/in <sup>2</sup>	ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	35.0 μm/m-°C	19.4 μin/in-°F	ISO 11359-1/-2
	@Temperature 20.0 °C	@Temperature 68.0 °F	
CTE, linear, Transverse to Flow	50.0 μm/m-°C	27.8 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)	215 °C	419 °F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	205 °C	401 °F	ISO 75-1/-2

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+14 ohm-cm	1.00e+14 ohm-cm	IEC 60093
Dielectric Constant	3.3	3.3	IEC 60250
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
	3.5	3.5	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	35.0 kV/mm	889 kV/in	IEC 60243-1
Dissipation Factor	0.0050	0.0050	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
	0.014	0.014	IEC 60250
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	

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

Descriptive Properties	Value	Comments
Release Agent	Yes	
With Fillers	Yes	

## Contact Songhan Plastic Technology Co.,Ltd.

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