

## DSM Akulon® K224-HG7 Nylon 6-35% Glass Reinforced (European Grade) (Dry)

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6 , 40% 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-K224-HG7-Nylon-6-35-Glass-Reinforced-European-Grade-Dry.php](http://www.lookpolymers.com/polymer_DSM-Akulon-K224-HG7-Nylon-6-35-Glass-Reinforced-European-Grade-Dry.php)

Physical Properties	Metric	English	Comments
Density	1.40 g/cc	0.0506 lb/in <sup>3</sup>	ISO 1183
Water Absorption	5.9 %	5.9 %	Sim. to ISO 62
Moisture Absorption at Equilibrium	1.8 %	1.8 %	Humidity Absorption; Sim. to ISO 62

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	195 MPa	28300 psi	ISO 527-1/-2
Elongation at Break	3.0 %	3.0 %	ISO 527-1/-2
Tensile Modulus	11.0 GPa	1600 ksi	ISO 527-1/-2
Charpy Impact Unnotched	9.00 J/cm <sup>2</sup>	42.8 ft-lb/in <sup>2</sup>	ISO 179/1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact, Notched	10.0 J/cm <sup>2</sup>	47.6 ft-lb/in <sup>2</sup>	ISO 179/1eU
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact, Notched	1.40 J/cm <sup>2</sup>	6.66 ft-lb/in <sup>2</sup>	ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact, Notched	1.80 J/cm <sup>2</sup>	8.57 ft-lb/in <sup>2</sup>	ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
	20.0 µm/m-°C	11.1 µin/in-°F	

CTE, linear, Parallel to Flow Thermal Properties	Metric @ Temperature 20.0 °C	English @ Temperature 68.0 °F	ISO 11359-1/-2 Comments
CTE, linear, Transverse to Flow	60.0 µm/m-°C @Temperature 20.0 °C	33.3 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
UL RTI, Electrical	140 °C @Thickness 1.50 mm	284 °F @Thickness 0.0591 in	UL746B
	140 °C @Thickness 0.710 mm	284 °F @Thickness 0.0280 in	UL746B
UL RTI, Mechanical with Impact	120 °C @Thickness 0.710 mm	248 °F @Thickness 0.0280 in	UL746B
	125 °C @Thickness 1.50 mm	257 °F @Thickness 0.0591 in	UL746B
UL RTI, Mechanical without Impact	140 °C @Thickness 0.710 mm	284 °F @Thickness 0.0280 in	UL746B
	150 °C @Thickness 1.50 mm	302 °F @Thickness 0.0591 in	UL746B
Flammability, UL94	HB @Thickness 1.60 mm	HB @Thickness 0.0630 in	IEC 60695-11-10
	HB @Thickness 0.710 mm	HB @Thickness 0.0280 in	IEC 60695-11-10

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

Electrical Properties	Metric	English	Comments
Dissipation Factor	@Frequency 100 Hz	@Frequency 100 Hz	IEC 60250
	0.015	0.015	IEC 60250
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Comparative Tracking Index	400 - 599 V	400 - 599 V	PLC 1; UL 746A
	500 V	500 V	IEC 60112

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

## Contact Songhan Plastic Technology Co.,Ltd.

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