

DSM Akulon® K224-G0 Nylon 6-50% Glass Reinforced (European Grade) (Dry)

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6, 50% 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-G0-Nylon-6-50-Glass-Reinforced-European-Grade-Dry.php

Physical Properties	Metric	English	Comments
Density	1.56 g/cc	0.0564 lb/in ³	ISO 1183
Water Absorption	4.5 %	4.5 %	Sim. to ISO 62
Moisture Absorption at Equilibrium	1.4 %	1.4 %	Humidity Absorption; Sim. to ISO 62

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	230 MPa	33400 psi	ISO 527-1/-2
Elongation at Break	3.0 %	3.0 %	ISO 527-1/-2
Tensile Modulus	16.0 GPa	2320 ksi	ISO 527-1/-2
Charpy Impact Unnotched	8.50 J/cm ²	40.5 ft-lb/in ²	ISO 179/1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	10.0 J/cm ²	47.6 ft-lb/in ²	ISO 179/1eU
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact, Notched	1.50 J/cm ²	7.14 ft-lb/in ²	ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	2.20 J/cm ²	10.5 ft-lb/in ²	ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
	10.0 µm/m-°C	5.56 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	50.0 µm/m-°C @Temperature 20.0 °C	27.8 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)	215 °C	419 °F	ISO 75-1/-2
UL RTI, Electrical	65.0 °C @Thickness 1.50 mm	149 °F @Thickness 0.0591 in	UL746B
	65.0 °C @Thickness 3.00 mm	149 °F @Thickness 0.118 in	UL746B
UL RTI, Mechanical with Impact	65.0 °C @Thickness 1.50 mm	149 °F @Thickness 0.0591 in	UL746B
	65.0 °C @Thickness 3.00 mm	149 °F @Thickness 0.118 in	UL746B
UL RTI, Mechanical without Impact	65.0 °C @Thickness 1.50 mm	149 °F @Thickness 0.0591 in	UL746B
	65.0 °C @Thickness 3.00 mm	149 °F @Thickness 0.118 in	UL746B
Flammability, UL94	HB @Thickness 1.60 mm	HB @Thickness 0.0630 in	IEC 60695-11-10
	HB @Thickness 3.00 mm	HB @Thickness 0.118 in	IEC 60695-11-10

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	IEC 60093
Dielectric Constant	3.5 @Frequency 100 Hz	3.5 @Frequency 100 Hz	IEC 60250
	5.2 @Frequency 1e+6 Hz	5.2 @Frequency 1e+6 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	600 V	600 V	IEC 60112
	>= 600 V	>= 600 V	PLC 0; UL 746A

Descriptive Properties	Value	Comments
Injection molding	Yes	
Release Agent	Yes	
With Fillers	Yes	

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