DSM Akulon® K223-KMV6 (GREY) Nylon 6-30% Mineral Reinforced (European and Asian Grade) (Dry)

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6, 30% Mineral 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 connectorsConsumer durables: Power tools, Lawn and garden tools, Small appliances, Sports and leisure equipment, Furniture, Industrial Goods, TransportationE&E: Low voltage switch gear/power distribution, Lighting, Power connectorsFilm: Specialty and barrier filmsInformation provided by DSM.

Order this product through the following link:
http://www.lookpolymers.com/polymer_DSM-Akulon-K223-KMV6-GREY-Nylon-6-30-Mineral-Reinforced-European-and-Asian-Grade-Dry.php

Physical Properties	Metric	English	Comments
Density	1.53 g/cc	0.0553 lb/in³	ISO 1183
Water Absorption	6.2 %	6.2 %	Sim. to ISO 62
Moisture Absorption at Equilibrium	1.7 %	1.7 %	Humidity Absorption; Sim. to ISO 62
Melt Flow	33.66 g/10 min @Load 2.16 kg, Temperature 250 °C	33.66 g/10 min @Load 4.76 lb, Temperature 482 °F	Calculated from Volume Flow Rate of 22 cm³/10min.; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	70.0 MPa	10200 psi	ISO 527-1/-2
Elongation at Break	2.5 %	2.5 %	ISO 527-1/-2
Tensile Modulus	8.00 GPa	1160 ksi	ISO 527-1/-2
Charpy Impact Unnotched	3.50 J/cm² @Temperature -30.0 °C	16.7 ft-lb/in² @Temperature -22.0 °F	ISO 179/1eU
	3.50 J/cm² @Temperature 23.0 °C	16.7 ft-lb/in² @Temperature 73.4 °F	ISO 179/1eU
Charpy Impact, Notched	0.500 J/cm² @Temperature -30.0 °C	2.38 ft-lb/in² @Temperature -22.0 °F	ISO 179/1eA
	0.500 J/cm²	2.38 ft-lb/in²	

Mechanical Properties	Metric	English	Comments
	@Temperature 23.0 °C	@Temperature 73.4 °F	ISO 179/1eA

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	50.0 µm/m-°C @Temperature 20.0 °C	27.8 µin/in-°F @Temperature 68.0 °F	ISO 11359-1/-2
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)	205 °C	401 °F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	145 °C	293 °F	ISO 75-1/-2
UL RTI, Electrical	140 °C @Thickness 1.50 mm	284 °F @Thickness 0.0591 in	UL746B
	140 °C @Thickness 3.00 mm	284 °F @Thickness 0.118 in	UL746B
UL RTI, Mechanical with Impact	110 °C @Thickness 1.50 mm	230 °F @Thickness 0.0591 in	UL746B
	110 °C @Thickness 3.00 mm	230 °F @Thickness 0.118 in	UL746B
UL RTI, Mechanical without Impact	140 °C @Thickness 1.50 mm	284 °F @Thickness 0.0591 in	UL746B
	140 °C @Thickness 3.00 mm	284 °F @Thickness 0.118 in	UL746B
Flammability, UL94	V-2 @Thickness 1.60 mm	V-2 @Thickness 0.0630 in	IEC 60695-11-10
	V-0 @Thickness 3.00 mm	V-0 @Thickness 0.118 in	IEC 60695-11-10
Glow Wire Test	725 °C @Thickness 0.750 mm	1340 °F @Thickness 0.0295 in	Glow Wire Ignition Temperature; IEC 60695-2-13
	775 °C @Thickness 3.00 mm	1430 °F @Thickness 0.118 in	Glow Wire Ignition Temperature; IEC 60695-2-13

Thermal Properties	Metric	English	Comments
	960 °C @Thickness 0.750 mm	1760 °F @Thickness 0.0295 in	Glow Wire Flammability Index; IEC 60695-2-12
	960 °C @Thickness 3.00 mm	1760 °F @Thickness 0.118 in	Glow Wire Flammability Index; IEC 60695-2-12

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	IEC 60093
Dielectric Constant	3.2 @Frequency 1e+6 Hz	3.2 @Frequency 1e+6 Hz	IEC 60250
	3.6 @Frequency 100 Hz	3.6 @Frequency 100 Hz	IEC 60250
Dielectric Strength	30.0 kV/mm	762 kV/in	IEC 60243-1
Dissipation Factor	0.0085 @Frequency 100 Hz	0.0085 @Frequency 100 Hz	IEC 60250
	0.014 @Frequency 1e+6 Hz	0.014 @Frequency 1e+6 Hz	IEC 60250
Comparative Tracking Index	250 - 399 V	250 - 399 V	PLC 2; UL 746A
	375 V	375 V	IEC 60112

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

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