

## DSM Akulon® K222-KMV5 Nylon 6-25% 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 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-K222-KMV5-Nylon-6-25-Mineral-Reinforced-European-and-Asian-Grade-Dry.php](http://www.lookpolymers.com/polymer_DSM-Akulon-K222-KMV5-Nylon-6-25-Mineral-Reinforced-European-and-Asian-Grade-Dry.php)

Physical Properties	Metric	English	Comments
Density	1.38 g/cc	0.0499 lb/in <sup>3</sup>	ISO 1183
Water Absorption	6.2 %	6.2 %	Sim. to ISO 62
Moisture Absorption at Equilibrium	1.8 %	1.8 %	Humidity Absorption; Sim. to ISO 62
Linear Mold Shrinkage, Flow	0.0040 cm/cm	0.0040 in/in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.0050 cm/cm	0.0050 in/in	ISO 294-4
Melt Flow	27.6 g/10 min @Load 2.16 kg, Temperature 250 °C	27.6 g/10 min @Load 4.76 lb, Temperature 482 °F	Calculated from Volume Flow Rate of 20 cm <sup>3</sup> /10min.; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	70.0 MPa	10200 psi	ISO 527-1/-2
Elongation at Break	3.0 %	3.0 %	ISO 527-1/-2
Tensile Modulus	6.20 GPa	899 ksi	ISO 527-1/-2
Charpy Impact Unnotched	3.50 J/cm <sup>2</sup> @Temperature 23.0 °C	16.7 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 179/1eU
Charpy Impact, Notched	0.500 J/cm <sup>2</sup> @Temperature 23.0 °C	2.38 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 179/1eA

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	50.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	27.8 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	ISO 11359-1/-2
	@Temperature 20.0 $^{\circ}\text{C}$	@Temperature 68.0 $^{\circ}\text{F}$	
CTE, linear, Transverse to Flow	50.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	27.8 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	ISO 11359-1/-2
	@Temperature 20.0 $^{\circ}\text{C}$	@Temperature 68.0 $^{\circ}\text{F}$	
Melting Point	220 $^{\circ}\text{C}$	428 $^{\circ}\text{F}$	10 $^{\circ}\text{C}/\text{min}$ ; ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	205 $^{\circ}\text{C}$	401 $^{\circ}\text{F}$	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	120 $^{\circ}\text{C}$	248 $^{\circ}\text{F}$	ISO 75-1/-2
UL RTI, Electrical	65.0 $^{\circ}\text{C}$	149 $^{\circ}\text{F}$	UL746B
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	65.0 $^{\circ}\text{C}$	149 $^{\circ}\text{F}$	UL746B
	@Thickness 0.750 mm	@Thickness 0.0295 in	
UL RTI, Mechanical with Impact	65.0 $^{\circ}\text{C}$	149 $^{\circ}\text{F}$	UL746B
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	65.0 $^{\circ}\text{C}$	149 $^{\circ}\text{F}$	UL746B
	@Thickness 1.50 mm	@Thickness 0.0591 in	
UL RTI, Mechanical without Impact	65.0 $^{\circ}\text{C}$	149 $^{\circ}\text{F}$	UL746B
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	65.0 $^{\circ}\text{C}$	149 $^{\circ}\text{F}$	UL746B
	@Thickness 0.750 mm	@Thickness 0.0295 in	
Flammability, UL94	V-2	V-2	IEC 60695-11-10
	@Thickness 1.60 mm	@Thickness 0.0630 in	
	V-2	V-2	IEC 60695-11-10
	@Thickness 0.750 mm	@Thickness 0.0295 in	
Glow Wire Test	700 $^{\circ}\text{C}$	1290 $^{\circ}\text{F}$	Glow Wire Ignition Temperature; IEC 60695-2-13
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	725 $^{\circ}\text{C}$	1340 $^{\circ}\text{F}$	Glow Wire Ignition Temperature; IEC 60695-2-13
	@Thickness 3.00 mm	@Thickness 0.118 in	
	960 $^{\circ}\text{C}$	1760 $^{\circ}\text{F}$	Glow Wire Flammability Index; IEC 60695-2-12

Thermal Properties	@Thickness 0.750 mm Metric 960 °C	@Thickness 0.0295 in English 1760 °F	Comments
	@Thickness 3.00 mm	@Thickness 0.118 in	Slow 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
Surface Resistance	>= 1.00e+15 ohm	>= 1.00e+15 ohm	IEC 60093
Comparative Tracking Index	600 V	600 V	IEC 60112
	>= 600 V	>= 600 V	PLC 0; UL 746A

Descriptive Properties	Value	Comments
Flame Retardant	Yes	
Flame Retarding Agent	Yes	
Heat stabilized or stable to heat	Yes	
Injection molding	Yes	
Release Agent	Yes	
RSV Formic Acid	2.25 g/100ml	ISO 307
With Fillers	Yes	

## Contact Songhan Plastic Technology Co.,Ltd.

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