

Akulon® K222-KMV5

Polyamide 6

DSM Engineering Plastics

PROSPECTOR®

www.ulprospector.com

Technical Data

Product Description

Akulon® K222-KMV5 is a Polyamide 6 (Nylon 6) material filled with 25% mineral. It is available in Asia Pacific or Europe for injection molding.

Important attributes of Akulon® K222-KMV5 are:

- Flame Rated
- Flame Retardant
- Halogen Free
- Heat Stabilizer

General

Material Status	• Commercial: Active
Literature ¹	• Processing (English) • Technical Datasheet (English)
UL Yellow Card ²	• E47960-257448
Search for UL Yellow Card	• DSM Engineering Plastics • Akulon®
Availability	• Asia Pacific • Europe
Filler / Reinforcement	• Mineral, 25% Filler by Weight
Additive	• Flame Retardant • Heat Stabilizer
Features	• Flame Retardant • Halogen Free • Heat Stabilized
Forms	• Pellets
Processing Method	• Injection Molding

Physical	Dry	Conditioned	Unit	Test Method
Density	1.38	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.82	--	%	
Flow	0.91	--	%	
Water Absorption				ISO 62
Saturation, 73°F (23°C)	6.2	--	%	
Equilibrium, 73°F (23°C), 50% RH	1.8	--	%	

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	870000 (6000)	363000 (2500)	psi (MPa)	ISO 527-2
Tensile Stress (Break)	9430 (65.0)	5080 (35.0)	psi (MPa)	ISO 527-2
Tensile Strain (Break)	2.5	30	%	ISO 527-2

Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F (-30°C)	0.95 (2.0)	--	ft·lb/in ² (kJ/m ²)	
73°F (23°C)	0.95 (2.0)	--	ft·lb/in ² (kJ/m ²)	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F (-30°C)	12 (25)	--	ft·lb/in ² (kJ/m ²)	
73°F (23°C)	14 (29)	--	ft·lb/in ² (kJ/m ²)	



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Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
66 psi (0.45 MPa), Unannealed	401 (205)	--	°F (°C)	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	230 (110)	--	°F (°C)	ISO 75-2/A
Melting Temperature	428 (220)	--	°F (°C)	ISO 11357-3
CLTE				ISO 11359-2
Flow	2.8E-5 (5.0E-5)	--	in/in/°F (cm/cm/°C)	
Transverse	2.8E-5 (5.0E-5)	--	in/in/°F (cm/cm/°C)	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	--	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	--	ohms·cm	IEC 60093
Comparative Tracking Index	--	600	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flammability Classification				IEC 60695-11-10, -20
0.0295 in (0.750 mm)	V-2	--		
0.0591 in (1.50 mm)	V-2	--		
Glow Wire Flammability Index				IEC 60695-2-12
0.0295 in (0.750 mm)	1760 (960)	--	°F (°C)	
0.118 in (3.00 mm)	1760 (960)	--	°F (°C)	
Glow Wire Ignition Temperature				IEC 60695-2-13
0.0295 in (0.750 mm)	1290 (700)	--	°F (°C)	
0.118 in (3.00 mm)	1340 (725)	--	°F (°C)	
Injection	Dry (English)	Dry (SI)		
Drying Temperature	176 °F	80.0 °C		
Drying Time	4.0 to 8.0 hr	4.0 to 8.0 hr		
Rear Temperature	437 to 455 °F	225 to 235 °C		
Middle Temperature	446 to 464 °F	230 to 240 °C		
Front Temperature	455 to 482 °F	235 to 250 °C		
Nozzle Temperature	455 to 491 °F	235 to 255 °C		
Processing (Melt) Temp	473 to 509 °F	245 to 265 °C		
Mold Temperature	122 to 176 °F	50.0 to 80.0 °C		
Injection Rate	Moderate-Fast	Moderate-Fast		
Back Pressure	435 to 1450 psi	3.00 to 10.0 MPa		
Screw Compression Ratio	2.5:1.0	2.5:1.0		

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

³ Typical properties: these are not to be construed as specifications.



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Where to Buy

Supplier

DSM Engineering Plastics

Evansville, IN USA

Telephone: 800-333-4237

Web: <http://www.dsm.com/>

Distributor

Nexeo Solutions - Europe

Nexeo Solutions is a Pan European distribution company. Contact Nexeo for availability of individual products by country.

Telephone: +34-93-480-9125

Web: <http://www.nexeosolutions.com/>

Availability: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, Russian Federation, Spain, Sweden, Switzerland, United Kingdom

RESINEX Group

RESINEX is a Pan European distribution company. Contact RESINEX for availability of individual products by country.

Telephone: +32-14-672511

Web: <http://www.resinex.com/>

Availability: Europe

TER HELL PLASTIC GMBH

TER HELL PLASTIC is a Pan European distribution company. Contact TER HELL PLASTIC for availability of individual products by country.

Telephone: +49-232-3941-0

Web: <http://www.terhell.de/>

Availability: Europe

