

Akulon® K225-KS

Polyamide 6
DSM Engineering Plastics

Message:

Akulon® K225-KS is a Polyamide 6 (Nylon 6) material. It is available in Asia Pacific, Europe, or North America.
Important attributes of Akulon® K225-KS are:
Flame Rated
Flame Retardant
Halogen Free
Heat Stabilizer

General Information		
UL YellowCard	E43392-235106	E47960-240104
Additive	Flame Retardant	
	Heat Stabilizer	
Features	Flame Retardant	
	Halogen Free	
	Heat Stabilized	
Forms	Pellets	
Multi-Point Data	Isothermal Stress vs. Strain (ISO 11403-1)	
	Secant Modulus vs. Strain (ISO 11403-1)	
	Shear Modulus vs. Temperature (ISO 11403-1)	
	Viscosity vs. Shear Rate (ISO 11403-2)	

Physical	Dry	Conditioned	Unit	Test Method
Density	1.18	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.91	--	%	
Flow	1.1	--	%	
Water Absorption				ISO 62
Saturation, 23°C	9.0	--	%	
Equilibrium, 23°C, 50% RH	2.5	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	3800	1400	MPa	ISO 527-2
Tensile Stress (Yield)	80.0	40.0	MPa	ISO 527-2
Tensile Strain (Yield)	3.5	22	%	ISO 527-2
Nominal Tensile Strain at Break	8.0	> 50	%	ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method

Charpy Notched Impact Strength				ISO 179/1eA
-30°C	5.0	5.0	kJ/m ²	
23°C	6.0	10	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	55	--	kJ/m ²	
23°C	60	--	kJ/m ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	180	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	75.0	--	°C	ISO 75-2/A
Melting Temperature ¹	220	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow	9.0E-5	--	cm/cm/°C	
Transverse	9.0E-5	--	cm/cm/°C	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	--	1.0E+14	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	1.0E+13	ohms·cm	IEC 60093
Electric Strength	30	25	kV/mm	IEC 60243-1
Relative Permittivity				IEC 60250
100 Hz	3.30	8.00		
1 MHz	3.20	3.60		
Dissipation Factor				IEC 60250
100 Hz	9.0E-3	0.13		
1 MHz	0.020	0.080		
Comparative Tracking Index	600	600	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flammability Classification				IEC 60695-11-10, -20
0.380 mm	V-0	--		
1.50 mm	V-0	--		
Glow Wire Flammability Index				IEC 60695-2-12
0.380 mm	960	--	°C	
1.50 mm	960	--	°C	
Glow Wire Ignition Temperature				IEC 60695-2-13
0.380 mm	960	--	°C	
1.50 mm	960	--	°C	
Injection	Dry	Unit		
Drying Temperature	80.0		°C	
Drying Time	4.0 to 8.0		hr	

Rear Temperature	225 to 230	°C
Middle Temperature	230 to 235	°C
Front Temperature	230 to 240	°C
Nozzle Temperature	230 to 250	°C
Processing (Melt) Temp	245 to 255	°C
Mold Temperature	50.0 to 80.0	°C
Injection Rate	Moderate-Fast	
Back Pressure	3.00 to 10.0	MPa
Screw Compression Ratio	2.5:1.0	
NOTE		

1. 10°C/min

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