

Akulon® K224-G7

Polyamide 6
DSM Engineering Plastics

Message:

Akulon® K224-G7 is a Polyamide 6 (Nylon 6) material filled with 35% glass fiber. It is available in Europe or North America.

General Information				
Filler / Reinforcement		Glass Fiber,35% Filler by Weight		
Physical	Dry	Conditioned	Unit	Test Method
Density	1.40	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	1.0	--	%	
Flow	0.15	--	%	
Water Absorption				ISO 62
Saturation, 23°C	5.9	--	%	
Equilibrium, 23°C, 50% RH	1.8	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	11500	7000	MPa	ISO 527-2
Tensile Stress (Break)	195	125	MPa	ISO 527-2
Tensile Strain (Break)	3.5	7.0	%	ISO 527-2
Flexural Modulus	9700	--	MPa	ISO 178
Flexural Stress	255	--	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	12	12	kJ/m ²	
23°C	16	24	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	75	75	kJ/m ²	
23°C	90	100	kJ/m ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	220	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	210	--	°C	ISO 75-2/A
Melting Temperature ¹	220	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow	2.0E-5	--	cm/cm/°C	
Transverse	6.0E-5	--	cm/cm/°C	

Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	--	1.0E+13	ohms	IEC 60093
Volume Resistivity	1.0E+14	1.0E+12	ohms·cm	IEC 60093
Electric Strength	35	25	kV/mm	IEC 60243-1
Relative Permittivity				IEC 60250
100 Hz	3.50	14.0		
1 MHz	3.30	4.40		
Dissipation Factor				IEC 60250
100 Hz	5.0E-3	0.30		
1 MHz	0.015	0.11		
Comparative Tracking Index	--	500	V	IEC 60112
Injection	Dry	Unit		
Drying Temperature	80.0		°C	
Drying Time	4.0 to 8.0		hr	
Rear Temperature	255 to 265		°C	
Middle Temperature	265 to 275		°C	
Front Temperature	265 to 280		°C	
Nozzle Temperature	260 to 280		°C	
Processing (Melt) Temp	250 to 285		°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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