

Akulon® Ultraflow K-FG6

Polyamide 6

DSM Engineering Plastics

Message:

Akulon® Ultraflow K-FG6 is a Polyamide 6 (Nylon 6) material filled with 30% glass fiber. It is available in Europe or North America.

Important attributes of Akulon® Ultraflow K-FG6 are:

Flame Rated

High Flow

General Information				
UL YellowCard	E47960-271796			
Filler / Reinforcement	Glass Fiber,30% Filler by Weight			
Features	High Flow			
Forms	Pellets			
Physical	Dry	Conditioned	Unit	Test Method
Density	1.35	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.86	--	%	
Flow	0.18	--	%	
Water Absorption				ISO 62
Saturation, 23°C	6.0	--	%	
Equilibrium, 23°C, 50% RH	1.8	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	9350	5700	MPa	ISO 527-2
Tensile Stress (Break)	160	105	MPa	ISO 527-2
Tensile Strain (Break)	3.0	7.0	%	ISO 527-2
Flexural Modulus	8500	--	MPa	ISO 178
Flexural Stress	235	--	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	10	10	kJ/m ²	
23°C	14	22	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	65	65	kJ/m ²	
23°C	85	90	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	200	--	°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	7.0E-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
Relative Permittivity				IEC 60250
100 Hz	3.50	14.0		
1 MHz	3.30	5.00		
Dissipation Factor				IEC 60250
100 Hz	5.0E-3	0.30		
1 MHz	0.015	0.12		
Comparative Tracking Index	--	600	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flammability Classification (1.60 mm)	HB	--		IEC 60695-11-10, -20
Injection	Dry	Unit		
Drying Temperature	80.0		°C	
Drying Time	4.0 to 8.0		hr	
Rear Temperature	230 to 250		°C	
Middle Temperature	230 to 260		°C	
Front Temperature	230 to 260		°C	
Nozzle Temperature	250 to 280		°C	
Processing (Melt) Temp	245 to 270		°C	
Mold Temperature	40.0 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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