Akulon® K223-HGM24

Polyamide 6

DSM Engineering Plastics

Message:

Akulon® K223-HGM24 is a Polyamide 6 (Nylon 6) material filled with 10% glass fiber and 20% mineral. It is available in Asia Pacific, Europe, or North America for injection molding.
Important attributes of Akulon® K223-HGM24 are:
Flame Rated
Heat Stabilizer
Mold Release Agent
Typical application of Akulon® K223-HGM24: Automotive

General Information				
UL YellowCard	E47960-100032021			
Filler / Reinforcement	Glass Fiber,10% Filler by Weight Mineral,20% Filler by Weight			
Additive	Heat Stabilizer Mold Release			
Features	Heat Stabilized			
Forms	Pellets			
Processing Method	Injection Molding			
Multi-Point Data	Viscosity vs. Shear Rate (ISO 11403-2)			
Physical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Density	1.37	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.90	--	%	
Flow	0.30	--	%	
Water Absorption				ISO 62
Saturation, 23°C	6.5	--	%	
Equilibrium, 23°C, 50% RH	1.9	--	%	
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus	7500	3200	MPa	ISO 527-2
Tensile Stress (Break)	110	50.0	MPa	ISO 527-2
Tensile Strain (Break)	2.5	12	%	ISO 527-2
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	5.0	5.0	kJ/m²	
23°C	3.0	8.0	kJ/m²	

Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	35	35	kJ/m²	
23°C	40	45	kJ/m²	
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Heat Deflection Temperature				
0.45 MPa, Unannealed	210	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	180	--	°C	ISO 75-2/A
Melting Temperature [1]	220	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow	3.5E-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	30	kV/mm	IEC 60243-1
Relative Permittivity				IEC 60250
100 Hz	3.50	14.0		
1 MHz	3.30	4.50		
Dissipation Factor				IEC 60250
100 Hz	5.0E-3	0.32		
1 MHz	0.014	0.12		
Comparative Tracking Index	--	500	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	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			

Recommended distributors for this material

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