

Akulon® S223-HG7

Polyamide 66
DSM Engineering Plastics

Message:

Akulon® S223-HG7 is a Polyamide 66 (Nylon 66) material filled with 35% glass fiber. It is available in Asia Pacific, Europe, or North America. Important attributes of Akulon® S223-HG7 are:
Flame Rated
Heat Stabilizer

General Information				
UL YellowCard		E47960-240115		
Filler / Reinforcement		Glass Fiber,35% Filler by Weight		
Additive		Heat Stabilizer		
Features		Heat Stabilized		
Forms		Pellets		
Multi-Point Data		Shear Modulus vs. Temperature (ISO 11403-1)		
Physical	Dry	Conditioned	Unit	Test Method
Density	1.41	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	1.4	--	%	
Flow	0.54	--	%	
Water Absorption				ISO 62
Saturation, 23°C	5.5	--	%	
Equilibrium, 23°C, 50% RH	1.5	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	11000	7500	MPa	ISO 527-2
Tensile Stress (Break)	200	130	MPa	ISO 527-2
Tensile Strain (Break)	3.0	6.0	%	ISO 527-2
Flexural Modulus	9400	--	MPa	ISO 178
Flexural Stress	270	--	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	11	11	kJ/m ²	
23°C	13	21	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	75	75	kJ/m ²	
23°C	95	110	kJ/m ²	
Thermal	Dry	Conditioned	Unit	Test Method

Heat Deflection Temperature				
0.45 MPa, Unannealed	260	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	250	--	°C	ISO 75-2/A
Melting Temperature ¹	260	--	°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	30	kV/mm	IEC 60243-1
Relative Permittivity				IEC 60250
100 Hz	4.00	10.0		
1 MHz	3.60	4.00		
Dissipation Factor				IEC 60250
100 Hz	5.0E-3	0.30		
1 MHz	0.014	0.10		
Comparative Tracking Index	500	500	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flammability Classification				IEC 60695-11-10, -20
0.710 mm	HB	--		
1.50 mm	HB	--		
Injection	Dry	Unit		
Drying Temperature	80.0		°C	
Drying Time	4.0 to 8.0		hr	
Rear Temperature	275 to 295		°C	
Middle Temperature	275 to 295		°C	
Front Temperature	275 to 290		°C	
Nozzle Temperature	280 to 290		°C	
Processing (Melt) Temp	280 to 305		°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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