Akulon® S223-HG6

Polyamide 66

DSM Engineering Plastics

Message:

Akulon® S223-HG6 is a Polyamide 66 (Nylon 66) material filled with 30% glass fiber. It is available in Asia Pacific, Europe, or North America.
Important attributes of Akulon® S223-HG6 are:
Flame Rated
Heat Stabilizer

General Information		
UL YellowCard	E43392-235168	E47960-240116
Filler / Reinforcement	Glass Fiber,30% Filler by Weight	
Additive	Heat Stabilizer	
Features	Heat Stabilized	
Forms	Pellets	
Multi-Point Data	Shear Modulus vs. Temperature (ISO 11403-1)	
	Specific Heat vs. Temperature (ISO 11403-2)	
	Viscosity vs. Shear Rate (ISO 11403-2)	

Physical	Dry	Conditioned	Unit	Test Method
Density	1.36	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	1.1	--	%	
Flow	0.20	--	%	
Water Absorption				ISO 62
Saturation, 23°C	6.0	--	%	
Equilibrium, 23°C, 50% RH	1.6	--	%	
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus	9500	7500	MPa	ISO 527-2
Tensile Stress (Break)	190	140	MPa	ISO 527-2
Tensile Strain (Break)	3.0	5.0	%	ISO 527-2
Flexural Modulus	8400	--	MPa	ISO 178
Flexural Stress	250	--	MPa	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	10	10	kJ/m²	
23°C	12	20	kJ/m²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	70	70	kJ/m²	

23°C	80	100	kJ/m²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	260	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	245	--	°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	7.0E-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	30	25	kV/mm	IEC 60243-1
Relative Permittivity				IEC 60250
100 Hz	3.80	10.0		
1 MHz	3.50	4.10		
Dissipation Factor				IEC 60250
100 Hz	9.0E-3	0.28		
1 MHz	0.016	0.080		
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			

Recommended distributors for this material

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