Chemlon® MDS2

Polyamide 6

Teknor Apex Company (Chem Polymer)

Message:

MDS2 is a 50% glass sphere filled nylon 6 that offers excellent rigidity coupled with minimal distortion.

General Information					
Filler / Reinforcement		Glass beads, 50% filler by weight			
Features	Rigidity, high				
Forms	Particle				
Processing Method		Injection molding			
Physical	Dry	Conditioned	Unit	Test Method	
Density	1.50		g/cm³	ISO 1183	
Molding Shrinkage ¹	1.0 - 1.5		%	Internal method	
Water Absorption (Equilibrium, 23°C, 50% RH)	0.80		%	ISO 62	
Mechanical	Dry	Conditioned	Unit	Test Method	
Tensile Modulus	5200		MPa	ISO 527-2	
Tensile Stress (Break)	65.0	38.0	MPa	ISO 527-2	
Tensile Strain (Break)	2.0	3.0	%	ISO 527-2	
Flexural Modulus	5000	2000	MPa	ISO 178	
Flexural Stress ²	120	50.0	MPa	ISO 178	
Impact	Dry	Conditioned	Unit	Test Method	
Charpy Notched Impact Strength	6.0	20	kJ/m²	ISO 179	
Charpy Unnotched Impact Strength	35		kJ/m²	ISO 179	
Thermal	Dry	Conditioned	Unit	Test Method	
Heat Deflection Temperature					
0.45 MPa, not annealed	> 200		°C	ISO 75-2/B	
1.8 MPa, not annealed	130		°C	ISO 75-2/A	
Electrical	Dry	Conditioned	Unit	Test Method	
Surface Resistivity	1.0E+15	1.0E+12	ohms	IEC 60093	
Volume Resistivity	1.0E+15	1.0E+12	ohms·cm	IEC 60093	
Dielectric Strength (3.00 mm)	10	9.0	kV/mm	IEC 60243-1	
Relative Permittivity	3.80	4.20		IEC 60250	
Dissipation Factor (1 MHz)	0.020	0.080		IEC 60250	
Comparative Tracking	525	500	V	IEC 60112	
Flammability	Dry	Conditioned	Unit	Test Method	

Oxygen Index	22		%	ISO 4589-2
Injection	Dry	Unit		
Drying Temperature	80.0 - 100		°C	
Drying Time	2.0		hr	
Rear Temperature	230 - 280		°C	
Middle Temperature	230 - 280		°C	
Front Temperature	230 - 280		°C	
Processing (Melt) Temp	< 300		°C	
Mold Temperature	60.0 - 80.0		°C	
Injection Rate	Fast			
Screw Speed	50 - 200		rpm	
Lateration for the atmosphere				

Injection instructions

Back pressure: LowInjection pressure: HighThe material is supplied dry and ready to mould in sealed, moisture proof sacks. No drying is necessary unless the materials has been exposed to air for longer than three hours. The appearance of splash marks on the surface of mouldings indicates excessive moisture is present. Should drying become necessary two hours at 80 - 100°C in a vacuum oven is recommended. Alternatively material maybe dried for up to six hours in a hopper drier or an air circulating oven at a temperature not exceeding 80°C.

NOTE

1.

2.

Mould shrinkage is significantly influenced by many factors including wall thickness, gating, component shape and moulding conditions.The range values stated were determined from specimen bar mouldings of 1.5mm to 4mm wall thickness. They are provided as a guide for comparison purposes only and no guarantee should be inferred from their inclusion. (Specimens measured in the dry state, 24 hours after moulding).

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