# Chemlon® MDS4

# Polyamide 6

Teknor Apex Company (Chem Polymer)

## Message:

MDS4 is a 25% glass sphere filled nylon 6 that offers increased rigidity coupled with low distortion.

General Information						
Filler / Reinforcement		Glass beads, 25% filler by weight				
Features		Low shrinkage				
		Excellent appearance				
Processing Method		Injection molding				
Physical	Dry	Conditioned	Unit	Test Method		
Density	1.32		g/cm³	ISO 1183		
Molding Shrinkage <sup>1</sup>	1.1 - 1.8		%	Internal method		
Water Absorption (Equilibrium, 23°C, 50% RH)	2.3		%	ISO 62		
Mechanical	Dry	Conditioned	Unit	Test Method		
Tensile Modulus	3600		MPa	ISO 527-2		
Tensile Stress	70.0	40.0	MPa	ISO 527-2		
Tensile Strain (Break)	3.0	5.0	%	ISO 527-2		
Flexural Modulus	3500	1200	MPa	ISO 178		
Flexural Stress	105	40.0	MPa	ISO 178		
Impact	Dry	Conditioned	Unit	Test Method		
Charpy Notched Impact Strength	7.0	33	kJ/m²	ISO 179/1eA		
Charpy Unnotched Impact Strength	No Break	No Break		ISO 179/1eU		
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	110		°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+17	1.0E+14	ohms·cm	IEC 60093		
Dielectric Strength (3.00 mm)	10	9.0	kV/mm	IEC 60243-1		
Comparative Tracking Index	525		V	IEC 60112		
Flammability	Dry	Conditioned	Unit	Test Method		
Oxygen Index	23		%	ISO 4589-2		

Injection	Dry	Unit		
Drying Temperature	80.0		°C	
Drying Time	2.0		hr	
Rear Temperature	245 - 280		°C	
Middle Temperature	245 - 280		°C	
Front Temperature	245 - 280		°C	
Processing (Melt) Temp	245 - 280		°C	
Mold Temperature	60.0 - 80.0		°C	
Injection Rate	Fast			
Back Pressure	Low			
Screw Speed	Moderate			
Injection instructions				

No drying is necessary unless the material 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.

#### NOTE

1.

Mould shrinkage is significantly influenced by many factors including wall thickness, gating, moulding shape and processing conditions. The range values given are 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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