Chemlon® MDSF1

Polyamide 6

Teknor Apex Company (Chem Polymer)

Message:

MDSF1 is a 40% mixed glass fibre and glass sphere filled injection moulding grade of nylon 6.

General Information				
Filler / Reinforcement	Glass Beads \Glass Fiber, 40% Filler by Weight			
Features	Rigidity, high Low shrinkage Excellent appearance			
Processing Method	Injection molding			
Physical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Density	1.46	--	g/cm³	ISO 1183
Molding Shrinkage [1]	0.80 - 1.5	--	%	Internal method
Water Absorption (Equilibrium, 23°C, 50% RH)	1.8	--	%	ISO 62
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus	7200	5000	MPa	ISO 527-2
Tensile Stress	120	90.0	MPa	ISO 527-2
Tensile Strain (Break)	2.0	3.0	%	ISO 527-2
Flexural Modulus	7100	3900	MPa	ISO 178
Flexural Stress	185	120	MPa	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength	9.5	18	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength	35 kJ/m²	No Break		ISO 179/1eU
Notched Izod Impact	6.5	--	kJ/m²	ISO 180/A
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Heat Deflection Temperature				
0.45 MPa, not annealed	> 220	--	°C	ISO 75-2/B
1.8 MPa, not annealed	220	--	°C	ISO 75-2/A
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Surface Resistivity	1.0E+14	1.0E+11	ohms	IEC 60093
Volume Resistivity	1.0E+17	1.0E+14	ohms·cm	IEC 60093
Dielectric Strength (3.00 mm)	14	9.0	kV/mm	IEC 60243-1
Comparative Tracking Index	500	--	V	IEC 60112

Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (1.50 mm, Teknor Apex test result)	HB	--		UL 94
Oxygen Index	24	--	%	ISO 4589-2

Injection	Dry	Unit
Drying Temperature	80.0	°C
Drying Time	2.0	hr
Rear Temperature	260 - 290	°C
Middle Temperature	260 - 290	°C
Front Temperature	260 - 290	°C
Processing (Melt) Temp	250 - 300	°C
Mold Temperature	70.0 - 90.0	°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).

Recommended distributors for this material

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