



Chemlon® MDS2

Teknor Apex Company (Chem Polymer) - Polyamide 6

General Information

Product Description

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

General

Material Status	• Commercial: Active
Availability	• Europe • North America
Filler / Reinforcement	• Glass Bead, 50% Filler by Weight
Features	• High Rigidity
Forms	• Pellets
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.50	--	g/cm ³	ISO 1183
Molding Shrinkage ²	1.0 to 1.5	--	%	Internal Method
Water Absorption Equilibrium, 73°F, 50% RH	0.80	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	754000	--	psi	ISO 527-2
Tensile Stress (Break)	9430	5510	psi	ISO 527-2
Tensile Strain (Break)	2.0	3.0	%	ISO 527-2
Flexural Modulus	725000	290000	psi	ISO 178
Flexural Stress ³	17400	7250	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength	2.9	9.5	ft-lb/in ²	ISO 179
Charpy Unnotched Impact Strength	17	--	ft-lb/in ²	ISO 179
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature 66 psi, Unannealed	> 392	--	°F	ISO 75-2/B
Heat Deflection Temperature 264 psi, Unannealed	266	--	°F	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
Electric Strength (0.118 in)	250	230	V/mil	IEC 60243-1
Relative Permittivity	3.80	4.20		IEC 60250
Dissipation Factor (1 MHz)	0.020	0.080		IEC 60250
Comparative Tracking Index	525	500	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Oxygen Index	22	--	%	ISO 4589-2

Processing Information

Injection	Dry	Unit
Drying Temperature	176 to 212	°F
Drying Time	2.0	hr
Rear Temperature	446 to 536	°F
Middle Temperature	446 to 536	°F

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Injection	Dry	Unit
Front Temperature	446 to 536	°F
Processing (Melt) Temp	< 572	°F
Mold Temperature	140 to 176	°F
Injection Rate	Fast	
Screw Speed	50 to 200	rpm

Injection Notes

Back pressure: Low

Injection pressure: High

The 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.

Notes

¹ Typical properties: these are not to be construed as specifications.

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).

³ Break