



Chemlon® MDF4

Teknor Apex Company (Chem Polymer) - Polyamide 6

General Information

Product Description

MDF4 is a 15% glass fibre reinforced nylon 6 that offers improved mechanical performance coupled with good surface finish.

General

Material Status	• Commercial: Active
Availability	• Europe • North America
Filler / Reinforcement	• Glass Fiber, 15% Filler by Weight
Features	• Good Surface Finish
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.25	--	g/cm ³	ISO 1183
Molding Shrinkage ²	1.0 to 1.6	--	%	Internal Method
Water Absorption				ISO 62
Equilibrium, 73°F, 50% RH	2.5	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	841000	--	psi	ISO 527-2
Tensile Stress (Break)	16000	10900	psi	ISO 527-2
Tensile Strain (Break)	3.0	--	%	ISO 527-2
Flexural Modulus	754000	392000	psi	ISO 178
Flexural Stress ³	24700	13100	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength	3.8	14	ft·lb/in ²	ISO 179
Charpy Unnotched Impact Strength	14	--	ft·lb/in ²	ISO 179
Notched Izod Impact Strength	3.6	--	ft·lb/in ²	ISO 180
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				ISO 75-2/B
66 psi, Unannealed	> 392	--	°F	
Heat Deflection Temperature				ISO 75-2/A
264 psi, Unannealed	374	--	°F	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+14	1.0E+12	ohms	IEC 60093
Volume Resistivity	1.0E+16	1.0E+14	ohms·cm	IEC 60093
Electric Strength (0.118 in)	280	200	V/mil	IEC 60243-1
Relative Permittivity	3.80	4.20		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
Front Temperature	446 to 536	°F

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Injection	Dry	Unit
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

No drying is necessary unless the materials has been exposed to air for longer than three hours.

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