



Chemlon® MDF50

Teknor Apex Company (Chem Polymer) - Polyamide 6

General Information

Product Description

MDF50 is a 50% glass fibre reinforced nylon 6 that offers excellent mechanical performance coupled with good surface finish.

General

Material Status	• Commercial: Active
Availability	• Europe
Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight
Features	• Good Surface Finish
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.56	--	g/cm ³	ISO 1183
Molding Shrinkage ²	0.40 to 0.90	--	%	Internal Method
Water Absorption				ISO 62
Equilibrium, 73°F, 50% RH	1.5	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	2.09E+6	1.51E+6	psi	ISO 527-2
Tensile Stress	31900	23200	psi	ISO 527-2
Tensile Strain (Break)	3.0	5.0	%	ISO 527-2
Flexural Modulus	1.81E+6	1.31E+6	psi	ISO 178
Flexural Stress	46400	33400	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Notched Izod Impact Strength	8.6	9.5	ft-lb/in ²	ISO 180/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
Electric Strength (0.118 in)	280	200	V/mil	IEC 60243-1
Comparative Tracking Index	600	--	V	IEC 60112

Processing Information

Injection	Dry	Unit
Drying Temperature	176	°F
Drying Time	2.0	hr
Rear Temperature	482 to 563	°F
Middle Temperature	482 to 563	°F
Front Temperature	482 to 563	°F
Processing (Melt) Temp	527 to 572	°F
Mold Temperature	176 to 194	°F
Injection Rate	Fast	
Back Pressure	Low	
Screw Speed	Moderate	

Injection Notes

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.