

# Chemlon® MDF4L

Teknor Apex Company (Chem Polymer) - Polyamide 6

Friday, June 30, 2017

## General Information

### Product Description

MDF4L is a 15% glass fibre reinforced, UV stabilised nylon 6 that offers improved mechanical performance, coupled with good surface finish and weathering resistance. The stabiliser package is colourless in the natural compound.

### General

Material Status	• Commercial: Active
Availability	• Europe
Filler / Reinforcement	• Glass Fiber, 15% Filler by Weight
Additive	• UV Stabilizer
Features	• Good Surface Finish • Light Stabilized • Weather Resistant
Processing Method	• Injection Molding

## ASTM & ISO Properties <sup>1</sup>

Physical	Dry	Conditioned	Unit	Test Method
Density	1.25	--	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage <sup>2</sup>	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	14500	10200	psi	ISO 527-2
Tensile Strain (Yield)	3.0	--	%	ISO 527-2
Flexural Modulus	754000	392000	psi	ISO 178
Flexural Stress	23900	12300	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength	3.8	14	ft·lb/in <sup>2</sup>	ISO 179/1eA
Charpy Unnotched Impact Strength	14	--	ft·lb/in <sup>2</sup>	ISO 179/1eU
Notched Izod Impact Strength	3.1	--	ft·lb/in <sup>2</sup>	ISO 180/A
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
Comparative Tracking Index	525	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Oxygen Index	22	--	%	ISO 4589-2

## Processing Information

### Injection

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

Revision Date: 3/17/2014

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Injection	Dry Unit
Front Temperature	446 to 536 °F
Processing (Melt) Temp	464 to 554 °F
Mold Temperature	140 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.

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 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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