



Chemlon® MDF604

Teknor Apex Company (Chem Polymer) - Polyamide 6

General Information

Product Description

MDF604 is a 20% glass fibre reinforced, impact modified nylon 6 that offers good rigidity and toughness over a wide temperature range.

General

Material Status	• Commercial: Active
Availability	• Europe
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight
Additive	• Impact Modifier
Features	• Good Toughness • Impact Modified • Medium Rigidity
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.23	g/cm ³	ISO 1183
Molding Shrinkage ²	0.70 to 1.6	%	Internal Method
Water Absorption (Equilibrium, 73°F, 50% RH)	2.1	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	798000	psi	ISO 527-2
Tensile Stress	16700	psi	ISO 527-2
Tensile Strain (Break)	8.5	%	ISO 527-2
Flexural Modulus	653000	psi	ISO 178
Flexural Stress	18100	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	9.5	ft-lb/in ²	ISO 179/1eA
Charpy Unnotched Impact Strength	> 21	ft-lb/in ²	ISO 179/1eU
Notched Izod Impact Strength	7.6	ft-lb/in ²	ISO 180/A
Unnotched Izod Impact Strength	> 21	ft-lb/in ²	ISO 180
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	392	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	374	°F	ISO 75-2/A
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+14	ohms	IEC 60093
Volume Resistivity	1.0E+16	ohms·cm	IEC 60093
Electric Strength (0.118 in)	410	V/mil	IEC 60243-1
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in, Teknor Apex test result)	HB		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	176	°F
Drying Time	20	hr
Rear Temperature	482 to 536	°F
Middle Temperature	482 to 536	°F
Front Temperature	482 to 536	°F
Processing (Melt) Temp	482 to 554	°F
Mold Temperature	140 to 176	°F
Injection Rate	Fast	

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Injection	Nominal Value	Unit
Back Pressure	Moderate	
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

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

² 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).