



Chemlon® MDMF31

Teknor Apex Company (Chem Polymer) - Polyamide 6

General Information

Product Description

MDMF31 is a 30% heat stabilised glass fibre and mineral reinforced grade of nylon 6.

General

Material Status	• Commercial: Active		
Availability	• Europe		
Filler / Reinforcement	• Glass\Mineral, 30% Filler by Weight		
Additive	• Heat Stabilizer		
Features	• Good Strength	• Heat Stabilized	• Medium Rigidity
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.37	--	g/cm ³	ISO 1183
Molding Shrinkage ²	0.50 to 1.2	--	%	Internal Method
Water Absorption				ISO 62
Equilibrium, 73°F, 50% RH	2.1	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	943000	464000	psi	ISO 527-2
Tensile Stress	15200	8700	psi	ISO 527-2
Tensile Strain (Break)	3.0	5.0	%	ISO 527-2
Flexural Modulus	870000	435000	psi	ISO 178
Flexural Stress	21800	12300	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength	2.9	5.7	ft·lb/in ²	ISO 179/1eA
Charpy Unnotched Impact Strength	24	--	ft·lb/in ²	ISO 179/1eU
Notched Izod Impact Strength	1.9	--	ft·lb/in ²	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	320	--	°F	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+14	1.0E+11	ohms	IEC 60093
Volume Resistivity	1.0E+16	1.0E+13	ohms·cm	IEC 60093
Electric Strength (0.118 in)	250	230	V/mil	IEC 60243-1
Comparative Tracking Index	500	--	V	IEC 60112

Processing Information

Injection	Dry	Unit
Drying Temperature	176	°F
Drying Time	2.0	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

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Injection	Dry Unit
Injection Rate	Fast
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).