+135-3858-6433 (GuangDong)
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TEKNOR APEX

Chemlon® MDF863

Teknor Apex Company (Chem Polymer) - Polyamide 6

General Information

Product Description

MDF863 is a 15% glass fibre reinforced, highly impact modified, flame retarded nylon 6 - suitable for use in sub zero service environments. It contains a RoHS permissible Brominated Flame Retardant.

General			
Material Status	• Commercial: Active		
Availability	• Europe		
Filler / Reinforcement	• Glass Fiber, 15% Filler by Weight		
Additive	• Flame Retardant [1]	• Impact Modifier	
Features	• Flame Retardant	• Impact Modified	• Low Temperature Impact Resistance
Processing Method	• Injection Molding		

ASTM & ISO Properties [2]

Physical	Nominal Value	Unit	Test Method
Density	1.36	g/cm³	ISO 1183
Molding Shrinkage [3]	0.80 to 1.6	%	Internal Method
Water Absorption (Equilibrium, 73°F, 50% RH)	1.6	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress	8700	psi	ISO 527-2
Flexural Modulus	406000	psi	ISO 178
Flexural Stress	10200	psi	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact Strength	8.1	ft·lb/in²	ISO 180/A
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+12	ohms	IEC 60093
Volume Resistivity	1.0E+14	ohms·cm	IEC 60093
Electric Strength (0.118 in)	510	V/mil	IEC 60243-1
Comparative Tracking Index	300	V	IEC 60112
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
0.06 in, Teknor Apex test result	V-1		
0.12 in, Teknor Apex test result	V-0		
Glow Wire Flammability Index (0.06 in)	1760	°F	IEC 60695-2-12
Oxygen Index	30	%	ISO 4589-2

Additional Information

Due to the thermal sensitivity of flame retarded products steps should be taken to limit hold up time and temperature for the material. Additional care should be taken during any interruptions to routine production and during any purging procedures in order to minimise degradation of the product.

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	176	°F
Drying Time	20	hr
Rear Temperature	473 to 536	°F
Middle Temperature	473 to 536	°F

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Injection	Nominal Value	Unit
Front Temperature	473 to 536	°F
Processing (Melt) Temp	473 to 536	°F
Mold Temperature	140 to 176	°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

[1] Brominated

[2] Typical properties: these are not to be construed as specifications.

[3] 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).