



Chemlon® 60CF4

Teknor Apex Company (Chem Polymer) - Polyamide 6

General Information

Product Description

60CF4 is a 20% carbon fibre filled grade of nylon 6. It offers outstanding strength and stiffness - coupled with low density and improved electrical conductivity of moulded parts. It is suitable for applications such as bearings and mechanical parts

General

Material Status	• Commercial: Active
Availability	• Europe
Filler / Reinforcement	• Carbon Fiber, 20% Filler by Weight
Features	• High Stiffness • High Strength • Low Density
Uses	• Bearings • Machine/Mechanical Parts
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.22	g/cm ³	ISO 1183
Water Absorption (Equilibrium, 73°F, 50% RH)	2.4	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2.18E+6	psi	ISO 527-2
Tensile Stress	29000	psi	ISO 527-2
Tensile Strain (Break)	4.0	%	ISO 527-2
Flexural Modulus	1.60E+6	psi	ISO 178
Flexural Stress	33400	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength	2.9	ft-lb/in ²	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)	> 392	°F	ISO 75-2/A
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+12	ohms-cm	IEC 60093
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	2.0	hr
Rear Temperature	482 to 518	°F
Middle Temperature	482 to 518	°F
Front Temperature	482 to 518	°F
Processing (Melt) Temp	482 to 536	°F
Mold Temperature	158 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.