Chemlon® 66CF4

Polyamide 66

Teknor Apex Company (Chem Polymer)

Message:

66CF4 is a 20% carbon fibre filled grade of nylon 66. 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 Information	
Filler / Reinforcement	Carbon fiber reinforced material, 20% filler by weight
Features	Low density Rigidity, high High strength
Uses	Machine/mechanical parts Bearing
Processing Method	Injection molding

Physical	Dry	Conditioned	Unit	Test Method
Density	1.22	--	g/cm³	ISO 1183
Molding Shrinkage [1]	0.20 - 1.0	--	%	Internal method
Water Absorption (Equilibrium, 23°C, 50% RH)	2.2	--	%	ISO 62
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus	15000	8400	MPa	ISO 527-2
Tensile Stress	200	150	MPa	ISO 527-2
Tensile Strain (Break)	4.0	4.1	%	ISO 527-2
Flexural Modulus	11000	7500	MPa	ISO 178
Flexural Stress	260	190	MPa	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Notched Izod Impact	4.5	7.5	kJ/m²	ISO 180/A
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Heat Deflection Temperature				
0.45 MPa, not annealed	> 200	--	°C	ISO 75-2/B
1.8 MPa, not annealed	> 200	--	°C	ISO 75-2/A
Linear thermal expansion coefficient				Internal method
Flow	1.2E-5	--	cm/cm/°C	Internal method
Lateral	5.1E-5	--	cm/cm/°C	Internal method
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Volume Resistivity	1.0E+12	--	ohms·cm	IEC 60093

Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (1.50 mm, Teknor Apex test result)	HB	--		UL 94

Injection	Dry	Unit
Drying Temperature	80.0	°C
Drying Time	2.0	hr
Rear Temperature	280 - 295	°C
Middle Temperature	280 - 295	°C
Front Temperature	280 - 295	°C
Processing (Melt) Temp	285 - 300	°C
Mold Temperature	90.0 - 100	°C
Injection Rate	Fast	
Back Pressure	Low	
Screw Speed	Moderate	

Injection instructions
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.

NOTE	
1.	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).

Recommended distributors for this material

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