



Chemlon® E-6 GF50

Teknor Apex Company (Chem Polymer) - Polyamide 6

General Information

Product Description

Chemlon® E-6 GF50 is an economy range 50% glass fibre reinforced Nylon 6 compound.
It is available in natural or black versions.

General

Material Status	• Commercial: Active
Availability	• Europe • North America
Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight
Appearance	• Black • Natural Color
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.56	g/cm ³	ISO 1183
Molding Shrinkage ²	0.40 to 0.70	%	Internal Method
Water Absorption (Equilibrium, 73°F, 50% RH)	1.5	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2.03E+6	psi	ISO 527-2
Tensile Stress (Break)	31900	psi	ISO 527-2
Tensile Strain (Break)	3.0	%	ISO 527-2
Flexural Modulus	1.96E+6	psi	ISO 178
Flexural Stress ³	43500	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength	5.7	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)	> 392	°F	ISO 75-2/A

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	176	°F
Drying Time	2.0	hr
Rear Temperature	536 to 563	°F
Middle Temperature	536 to 563	°F
Front Temperature	536 to 563	°F
Processing (Melt) Temp	< 572	°F
Mold Temperature	176 to 194	°F
Injection Rate	Fast	
Screw Speed	50 to 200	rpm

Injection Notes

Back pressure: Low
Injection pressure: High

The material is supplied dry and ready to mould in sealed, moisture proof sacks. 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. Should drying become necessary, two hours at 80°C in a dehumidifying drier is recommended. The use of air circulating driers is not generally recommended, as longer drying times are often required, with greater potential for product oxidation and yellowing. Drying temperatures should not exceed 80°C.