



Chemlon® 66GF6

Teknor Apex Company (Chem Polymer) - Polyamide 66

General Information

Product Description

66GF6 is a 30% glass fibre reinforced nylon 66 that offers good mechanical performance coupled with good surface finish and flow.

General

Material Status	• Commercial: Active
Availability	• Europe • North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Features	• Good Flow • Good Surface Finish
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.38	--	g/cm ³	ISO 1183
Molding Shrinkage ²	0.30 to 0.60	--	%	Internal Method
Water Absorption				ISO 62
Equilibrium, 73°F, 50% RH	0.50	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	1.31E+6	986000	psi	ISO 527-2
Tensile Stress (Yield)	22500	16000	psi	ISO 527-2
Tensile Strain (Break)	5.0	10	%	ISO 527-2
Flexural Modulus	1.09E+6	667000	psi	ISO 178
Flexural Stress				ISO 178
-- ³	29000	--	psi	
-- ⁴	--	14500	psi	
Impact	Dry	Conditioned	Unit	Test Method
Notched Izod Impact Strength	3.8	9.5	ft-lb/in ²	ISO 180
Unnotched Izod Impact Strength	23 ft-lb/in ²	No Break		ISO 180
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				ISO 75-2/B
66 psi, Unannealed	> 464	464	°F	
Heat Deflection Temperature				ISO 75-2/A
264 psi, Unannealed	464	446	°F	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+14	1.0E+12	ohms	IEC 60093
Volume Resistivity	1.0E+14	1.0E+12	ohms·cm	IEC 60093
Electric Strength (0.118 in)	410	250	V/mil	IEC 60243-1
Relative Permittivity (1 MHz)	3.70	4.20		IEC 60250
Dissipation Factor (1 MHz)	0.010	0.040		IEC 60250
Comparative Tracking Index	600	500	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
Teknor Apex result	HB	HB		

Processing Information

Injection	Dry	Unit
Drying Temperature	176	°F
Drying Time	2.0	hr

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Injection	Dry	Unit
Rear Temperature	518 to 554	°F
Middle Temperature	518 to 554	°F
Front Temperature	518 to 554	°F
Processing (Melt) Temp	< 572	°F
Mold Temperature	140 to 176	°F
Injection Rate	Fast	
Screw Speed	50 to 200	rpm

Injection Notes

Back Pressure: Low
Injection Pressure: High

No drying is necessary unless the material has been exposed to air for longer than 3 hours.

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, component shape and moulding conditions. The range values stated were 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).

³ At Break

⁴ At Yield