

# HiFill® PA6 GF50 LE

Polyamide 6

Techmer Engineered Solutions

Message:

HiFill® PA6 GF50 LE is a Polyamide 6 (Nylon 6) product filled with 50% glass fiber. It can be processed by injection molding and is available in North America. Typical application: Food Contact Applications. Primary characteristic: lubricated.

General Information				
Filler / Reinforcement		Glass Fiber,50% Filler by Weight		
Additive		Lubricant		
Features		Low Extractables		
		Lubricated		
Agency Ratings		FDA Unspecified Rating		
Appearance		Colors Available		
Forms		Pellets		
Processing Method		Injection Molding		
Physical	Dry	Conditioned	Unit	Test Method
Specific Gravity	1.57	--	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.30	--	%	ASTM D955
Water Absorption (24 hr)	0.75	--	%	ASTM D570
Hardness	Dry	Conditioned	Unit	Test Method
Rockwell Hardness (R-Scale)	121	--		ASTM D785
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Strength (Break)	221	193	MPa	ASTM D638
Tensile Elongation (Break)	2.5	4.0	%	ASTM D638
Flexural Modulus	14100	10700	MPa	ASTM D790
Flexural Strength	290	269	MPa	ASTM D790
Impact	Dry	Conditioned	Unit	Test Method
Notched Izod Impact (23°C, 3.18 mm)	160	270	J/m	ASTM D256
Unnotched Izod Impact (3.18 mm)	1100 J/m	No Break		ASTM D256
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ASTM D648
0.45 MPa, Unannealed	218	--	°C	
1.8 MPa, Unannealed	216	--	°C	
CLTE - Flow	1.4E-5	--	cm/cm/°C	ASTM D696
Electrical	Dry	Conditioned	Unit	Test Method

Volume Resistivity	1.0E+15	--	ohms·cm	ASTM D257
Dielectric Strength <sup>1</sup>	18	--	kV/mm	ASTM D149
Injection	Dry	Unit		
Drying Temperature	82.2		°C	
Drying Time	4.0		hr	
Rear Temperature	260 to 304		°C	
Middle Temperature	260 to 304		°C	
Front Temperature	260 to 304		°C	
Processing (Melt) Temp	243 to 271		°C	
Mold Temperature	65.6 to 93.3		°C	
Back Pressure	0.00 to 0.345		MPa	
Screw Speed	30 to 60		rpm	
NOTE				

1. Method A (Short-Time)

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#### Recommended distributors for this material

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