# Amodel® LF-1630 L NT-7

### Polyphthalamide

Solvay Specialty Polymers

#### Message:

Amodel ® LF-1630 L NT-7 is 30% long carbon fiber reinforced, easy-flowing PPA which can be processed on most injection molding machines. This material achieves extremely high mechanical and thermal properties, in combination with ease of processing and fast cycle times. It exhibits high strength, stiffness and impact strength at high temperatures; excellent creep and fatigue resistance; isotropic mechanical properties and reduced isotropic shrinkage; high shear strength and high burst pressure; and an excellent surface finish.

General Information				
Filler / Reinforcement	Long carbon fiber, 30% filler by weight			
Features	Low CLTE			
	Low warpage			
	Rigidity, high			
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	High tensile strength			
	Insulation			
	Impact resistance, high			
	Good creep resistance			
	Fatigue resistance			
	Hot water formability			
Uses	Gear			
	Aircraft applications			
	Application in Automobile Field			
	Car dashboard			
Appearance	Natural color			
Forms	Particle			
Physical	Nominal Value	Unit	Test Method	
Density	1.30	g/cm³	ISO 1183	
shrinkage-Flow <sup>1</sup>	0.25	%	Internal method	
Water Absorption (Equilibrium, 23°C, 50% RH)	0.80	%	ISO 62	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Modulus (23°C)	26000	MPa	ISO 527-2	
Tensile Stress (Break, 23°C)	320	MPa	ISO 527-2	
Tensile Strain (Break)	1.5	%	ISO 527-2	
Flexural Modulus (23°C)	24500	MPa	ISO 178	
Flexural Stress (23°C)	440	MPa	ISO 178	
Impact	Nominal Value	Unit	Test Method	

Charpy Notched Impact Strength (23°C)	12	kJ/m²	ISO 179
Charpy Unnotched Impact Strength (23°C)	55	kJ/m²	ISO 179
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, not annealed	300	°C	ISO 75-2/B
1.8 MPa, not annealed	285	°C	ISO 75-2/A
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	100	ohms/sq	ASTM D257
Injection	Nominal Value	Unit	
Drying Temperature	120	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.080	%	
Suggested Max Regrind	20	%	
Rear Temperature	320 - 340	°C	
Middle Temperature	320 - 335	°C	
Front Temperature	320 - 335	°C	
Nozzle Temperature	325 - 340	°C	
Processing (Melt) Temp	< 340	°C	
Mold Temperature	135 - 165	°C	
Injection instructions			

Pre-Drying -- Since polyamides are hygroscopic materials as well as sensitive to moisture during processing, this product should always be pre-dried.Regrind -- Regrind of highly filled thermoplastic materials, such as this material, should only be recycled with special care. The regrind content must never exceed 20% and only regrind of optimum quality should be used. In any case, part properties should be checked.

NOTE

1.

Tested in accordance with S.O.P. methods

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