Omnix® LF-4060 BK 000

High Performance Polyamide

Solvay Specialty Polymers

Message:

Omnix® LF-4060 BK 000 is a 60% long glass fiber reinforced, easy-flowing HPPA 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 glass fiber, 60% filler by weight		
Features	Low CLTE Low warpage Rigidity, high Rigidity, high 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	Black		
Forms	Particle		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.69	g/cm³	ISO 1183
shrinkage-Flow [1]	0.10	%	Internal method
Water Absorption (Equilibrium, 23°C, 50% RH)	1.2	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			ISO 527-2
23°C	22500	MPa	ISO 527-2
70°C	17000	MPa	ISO 527-2
Tensile Stress			ISO 527-2
Fracture, 23°C	285	MPa	ISO 527-2
Fracture, 70°C	200	MPa	ISO 527-2

Tensile Strain (Break)	2.0	%	ISO 527-2
Flexural Modulus (23°C)	21500	MPa	ISO 178
Flexural Stress (23°C)	420	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (23°C)	45	kJ/m^2	ISO 179
Charpy Unnotched Impact Strength (23°C)	110	kJ/m^2	ISO 179
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
0.45 MPa, not annealed	260	°C	ISO 75-2/B
1.8 MPa, not annealed	255	°C	ISO 75-2/A
CLTE - Flow	1.8E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.35	W/m/K	ISO 22007
Electrical	**Nominal Value**	**Unit**	**Test Method**
Dielectric Strength (2.00 mm)	35	kV/mm	IEC 60243-1
Comparative Tracking Index	600	V	IEC 60112
Surface Resistivity	1.0E+13	ohms/sq	ASTM D257
Injection	**Nominal Value**	**Unit**	
Drying Temperature	80	°C	
Drying Time	4.0 - 12	hr	
Suggested Max Moisture	0.10	%	
Suggested Max Regrind	20	%	
Rear Temperature	280 - 300	°C	
Middle Temperature	285 - 300	°C	
Front Temperature	285 - 300	°C	
Nozzle Temperature	285 - 300	°C	
Processing (Melt) Temp	< 320	°C	
Mold Temperature	80 - 140	°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

Recommended distributors for this material

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