Xencor™ PARA LGF-1050

polyarylamide

Xencor™ PARA LGF-1050 is a 50% Long Glass Fiber reinforced, heat stabilized polyarylamide PARA with excellent surface gloss, low moisture absorption and high heat deflection temperature. It exhibits unique stiffness/toughness combination, an excellent retention of properties in a wide temperature range, as well as outstanding creep resistance.

Xencor™ PARA LGF-1050 has a pellet length of 9mm and can be processed on most injection-molding machines. It is available in black and natural.

Black: Xencor™ PARA LGF-1050 BK 000-9
Natural: Xencor™ PARA LGF-1050 NT-9

General		
Material Status	• Commercial: Active	
Availability	• Africa & Middle East • Asia Pacific • Europe	• Latin America • North America
Filler / Reinforcement	• Long Glass Fiber, 50% Filler by Weight	
Features	• Creep Resistant • Electrically Insulating • Fatigue Resistant • High Gloss • High Impact Resistance	• High Temperature Stiffness • Low CLTE • Low Shrinkage • Low Warpage
Uses	• Aircraft Applications • Automotive Applications	• Consumer Applications • Industrial Applications
RoHS Compliance	• RoHS Compliant	
Appearance	• Black	
Forms	• Pellets	
Processing Method	• Compression Molding • Injection Molding	• Overmolding

Physical	Typical Value	Unit	Test method
Density	1.64	g/cm³	ISO 1183
Water Absorption (Equilibrium, 23°C, 50% RH)	1.2	%	ISO 62
Mold Shrinkage - Flow [1]	0.10 to 0.30	%	Internal Method

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Mechanical	Typical Value	Unit	Test method
Tensile Modulus			ISO 527-1
23°C	22000	MPa	
70°C	20000	MPa	
Tensile Stress			ISO 527-2
23°C	265	MPa	
70°C	205	MPa	
Tensile Strain (Break)	1.6	%	ISO 527-2
Flexural Modulus (23°C)	21000	MPa	ISO 178
Flexural Stress (23°C)	405	MPa	ISO 178

Impact	Typical Value	Unit	Test method
Charpy Notched Impact Strength (23°C)	34	kJ/m²	ISO 179
Charpy Unnotched Impact Strength (23°C)	60	kJ/m²	ISO 179

Thermal	Typical Value	Unit	Test method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	260	°C	ISO 75-2/B
1.8 MPa, Unannealed	255	°C	ISO 75-2/A

Injection	Typical Value	Unit
Drying Temperature	120	°C
Drying Time	4.0	hr
Suggested Max Moisture	0.080	%
Rear Temperature	280 to 300	°C
Middle Temperature	280 to 310	°C
Front Temperature	280 to 310	°C
Nozzle Temperature	270 to 310	°C
Processing (Melt) Temp	< 310	°C
Mold Temperature	120 to 140	°C

Injection Notes

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.

Notes

Typical properties: these are not to be construed as specifications.

[1] Tested in accordance with Specialty Polymers methods.