

Ixef® LF-1050 BK 000

polyarylamide

Ixef® LF-1050 BK 000 is a 50% long glass fiber reinforced, easy-flowing polyarylamide which can be processed on most injection molding machines.

This material achieves extremely high mechanical and thermal properties. It exhibits high strength, stiffness and

impact strength at higher temperatures; excellent creep and fatigue resistance; low moisture pick-up; higher isotropy in mechanical properties and reduced anisotropic in shrinkage; high shear strength and high burst pressure; and exceptional surface finish.

General

Material Status	• Commercial: Active
Availability	• Europe
Filler / Reinforcement	• Long Glass Fiber, 50% Filler by Weight
Features	<ul style="list-style-type: none"> • Creep Resistant • Fatigue Resistant • High Impact Resistance • High Rigidity • High Stiffness • High Strength • High Tensile Strength • Low CLTE • Low Moisture Absorption • Low Warpage • Outstanding Surface Finish
Uses	<ul style="list-style-type: none"> • Automotive Interior Parts • Cell Phones • Consumer Applications • Hospital Goods • Sporting Goods
RoHS Compliance	• Contact Manufacturer
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding

Physical

	Typical Value	Unit	Test method
Density	1.64	g/cm ³	ISO 1183
Water Absorption (Equilibrium, 23°C, 50% RH)	1.2	%	ISO 62
Mold Shrinkage - Flow ¹	0.10 to 0.30	%	Internal Method

Mechanical

	Typical Value	Unit	Test method
Tensile Modulus			ISO 527-2
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/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	60	kJ/m ²	ISO 179

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Thermal	Typical Value	Unit	Test method
Heat Deflection Temperature			
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.

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