

Xencor™ PA66 LCF-2030 polyamide 66

Xencor™ PA66 LCF-2030, a 30% long carbon fiber reinforced, heat stabilized PA66, can easily be processed on most injection molding machines.

The material exhibits an excellent combination of high stiffness and impact performances, while ensuring ease of processing and fast cycle times. It provides high strength, outstanding stiffness

retention at high temperature, excellent creep and fatigue resistance, isotropic mechanical properties with low isotropic shrinkage, and excellent surface finish.

Available in natural, the pellet length is 7mm.

Natural: Xencor™ PA66 LCF-2030 BK001-7

General

Material Status	• Commercial: Active
Availability	• Europe
Filler / Reinforcement	• Long Carbon Fiber, 30% Filler by Weight
Features	<ul style="list-style-type: none"> • Creep Resistant • Fatigue Resistant • High Stiffness • High Strength • Low Shrinkage • Outstanding Surface Finish
RoHS Compliance	• RoHS Compliant
Appearance	• Natural Color
Forms	• Pellets
Processing Method	<ul style="list-style-type: none"> • Compression Molding • Injection Molding • Overmolding

Physical	Typical Value	Unit	Test method
Density	1.28	g/cm ³	ISO 1183
Molding Shrinkage - Flow	0.25	%	ISO 294-4
Water Absorption (Equilibrium, 23°C, 50% RH)	1.7	%	ISO 62

Mechanical	Typical Value	Unit	Test method
Tensile Modulus (23°C)	24000	MPa	ISO 527-1
Tensile Stress (Yield, 23°C)	325	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	2.0	%	ISO 527-2
Flexural Modulus (23°C)	22500	MPa	ISO 178
Flexural Stress (23°C)	435	MPa	ISO 178

Impact	Typical Value	Unit	Test method
Charpy Notched Impact Strength (23°C)	18	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	55	kJ/m ²	ISO 179



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Thermal	Typical Value	Unit	Test method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	255	°C	ISO 75-2/B
1.8 MPa, Unannealed	250	°C	ISO 75-2/A
CLTE - Flow (23°C)	1.8E-5	cm/cm/°C	ISO 7991
Thermal Conductivity	0.51	W/m/K	ISO 22007

Electrical	Typical Value	Unit	Test method
Surface Resistivity	1.0E+2	ohms	ASTM D257

Injection	Typical Value	Unit
Drying Temperature	110	°C
Drying Time	4.0	hr
Suggested Max Regrind	15	%
Rear Temperature	270 to 300	°C
Middle Temperature	270 to 300	°C
Front Temperature	285 to 310	°C
Nozzle Temperature	285 to 320	°C
Processing (Melt) Temp	< 310	°C
Mold Temperature	80 to 160	°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. At a humidity content above 0.1%, the material will begin to degrade. Recommended drying time is 4 hours at 110°C in dry-air dryer.

Mold Temperature

- The mold temperature is a compromise between the optimum properties that can be obtained from high crystallization, and cycle time. This product can be processed at mold temperatures between 80°C and 160°C. Optimum surface quality requires a mold temperature above 100°C.

Regrind

- This product should only be recycled with special care. The regrind content must never exceed 15%, 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.

