Xencor™ PPA LGF-1930 FW HS
polyphthalamide

Xencor™ PPA LGF-1930 FW HS is a 30% long glass fiber reinforced, heat stabilized polyphtalamide PPA, with improved friction & wear properties, high heat deflection temperature, very high flexural modulus and low moisture absorption. It displays an excellent retention of properties in a wide temperature range as well as outstanding creep and fatigue resistance.

Xencor™ PPA LGF-1930 FW HS has a pellet length of 9mm and can be processed on most injection-molding machine.

- Black: Xencor™ PPA LGF-1930 FW HS BK 545-9

General		
Material Status	• Commercial: Active	
Availability	• Africa & Middle East • Asia Pacific • Europe	• Latin America • North America
Filler / Reinforcement	• Long Glass Fiber, 30% Filler by Weight	
Features	• Creep Resistant • Electrically Insulating • Fatigue Resistant • High Impact Resistance • High Temperature Stiffness	• Low CLTE • Low Friction • Low Shrinkage • Low Warpage
Uses	• Aircraft Applications • Automotive Applications • Consumer Applications	• Gears • Industrial Applications
RoHS Compliance	• RoHS Compliant	
Appearance	• Black	
Forms	• Pellets	
Processing Method	• Compression Molding • Injection Molding	• Overmolding

Physical	Dry	Conditioned	Unit	Test method
Density	1.55	--	g/cm³	ISO 1183
Molding Shrinkage - Flow [1]	0.35	--	%	Internal Method
Water Absorption (Equilibrium, 23°C, 50% RH)	1.4	--	%	ISO 62

Mechanical	Dry	Conditioned	Unit	Test method
Tensile Modulus				ISO 527-1
23°C	12000	11500	MPa	
90°C	11000	--	MPa	
120°C	9500	--	MPa	

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Mechanical	Dry	Conditioned	Unit	Test method
Tensile Stress				ISO 527-2
Break, 23°C	205	195	MPa	
Break, 90°C	160	--	MPa	
Break, 120°C	135	--	MPa	
Tensile Strain (Break)	2.0	2.0	%	ISO 527-2
Flexural Modulus (23°C)	11200	17100	MPa	ISO 178
Flexural Stress (23°C)	290	--	MPa	ISO 178
Coefficient of Friction				ASTM D3702
Dynamic	0.22	--		
Static	0.18	--		
Wear Factor	15	--	10^-8 mm³/N·m	ASTM D3702

Impact	Dry	Conditioned	Unit	Test method
Charpy Notched Impact Strength (23°C)	12	--	kJ/m²	ISO 179
Charpy Unnotched Impact Strength (23°C)	65	--	kJ/m²	ISO 179

Thermal	Dry	Conditioned	Unit	Test method
Deflection Temperature Under Load				
0.45 MPa, Unannealed	300	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	285	--	°C	ISO 75-2/A
CLTE - Flow	2.5E-5	--	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.30	--	W/m/K	ISO 22007

Electrical	Dry	Conditioned	Unit	Test method
Electric Strength (2.00 mm)	35	--	kV/mm	IEC 60243-1
Comparative Tracking Index	550	--	V	IEC 60112
Surface Resistivity	1.0E+12	--	ohms/sq	ASTM D257

Injection	Dry	Unit
Drying Temperature	120	°C
Drying Time	4.0 to 8.0	hr
Suggested Max Moisture	0.030 to 0.060	%
Suggested Max Regrind	20	%
Rear Temperature	330 to 340	°C
Middle Temperature	335	°C
Front Temperature	335	°C
Nozzle Temperature	335 to 340	°C
Processing (Melt) Temp	< 340	°C
Mold Temperature	135 to 160	°C

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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 S.O.P. methods

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Safety Data Sheets (SDS) are available by emailing us or contacting your sales representative. Always consult the appropriate SDS before using any of our products.