

Amodel® LF-1930 FW HS polyphthalamide

Amodel® LF-1930 FW HS is a 30% long glass fiber reinforced, heat stabilized polyphthalamide 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.

Amodel® LF-1930 FW HS has a pellet length of 9mm and can be processed on most injection-molding machine.

- Black: Amodel® LF-1930 FW HS BK545

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
Appearance	• Black	
Forms	• Pellets	
Processing Method	• Injection Molding	

Physical	Dry	Conditioned	Unit	Test method
Density	1.55	--	g/cm ³	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 527-2
23°C	12000	11500	MPa	
90°C	11000	--	MPa	
120°C	9500	--	MPa	
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

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Mechanical	Dry	Conditioned	Unit	Test method
Coefficient of Friction				ASTM D3702
Dynamic	0.22	--		
Static	0.18	--		
Wear Factor	15	--	10 ⁻⁸ mm ³ /N·m	ASTM D3702
Impact	Dry	Conditioned	Unit	Test method
Charpy Notched Impact Strength (23°C)	12	--	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	65	--	kJ/m ²	ISO 179
Thermal	Dry	Conditioned	Unit	Test method
Heat Deflection Temperature				
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

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Injection	Dry Unit
Drying Temperature	120 °C
Drying Time	4.0 hr
Suggested Max Moisture	0.030 to 0.060 %
Suggested Max Regrind	20 %
Rear Temperature	315 to 340 °C
Middle Temperature	315 to 335 °C
Front Temperature	315 to 335 °C
Nozzle Temperature	315 to 340 °C
Processing (Melt) Temp	< 340 °C
Mold Temperature	135 to 165 °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 S.O.P. methods



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.

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