Amodel® LF-1930 HS

polyphthalamide

Amodel® LF-1930 HS is a 30% Long Glass Fiber reinforced, heat stabilized polyphtalamide PPA, with 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 HS has a pellet length of 9mm and can be processed on most injection-molding machines.

- Black: Amodel® LF-1930 HS BK545
- Natural: Amodel® LF-1930 HS NT

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 Shrinkage • Low Warpage
Uses	• Aircraft Applications • Automotive Applications	• Consumer Applications • Industrial Applications
Appearance	• Black	• Natural Color
Forms	• Pellets	
Processing Method	• Injection Molding	

Physical	Dry	Conditioned	Unit	Test method
Density	1.44	--	g/cm³	ISO 1183

Mechanical	Dry	Conditioned	Unit	Test method
Tensile Modulus				ISO 527-2
23°C	11000	11000	MPa	
90°C	10000	--	MPa	
120°C	6500	--	MPa	
Tensile Stress				ISO 527-2
Break, 23°C	180	165	MPa	
Break, 90°C	160	--	MPa	
Break, 120°C	110	--	MPa	
Tensile Strain (Break)	1.8	2.0	%	ISO 527-2
Flexural Modulus (23°C)	10300	--	MPa	ISO 178
Flexural Stress (23°C)	275	--	MPa	ISO 178

Impact	Dry	Conditioned	Unit	Test method
Charpy Notched Impact Strength (23°C)	20	--	kJ/m²	ISO 179
Charpy Unnotched Impact Strength (23°C)	50	--	kJ/m²	ISO 179

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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

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	325 to 340	°C
Middle Temperature	325 to 340	°C
Front Temperature	325 to 340	°C
Nozzle Temperature	325 to 345	°C
Processing (Melt) Temp	< 345	°C
Mold Temperature	130 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.

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