Amodel® AT-6130 HS
polyphthalamide

Amodel® AT-6130 HS is a 30% glass-reinforced, toughened polyphthalamide (PPA) resin that has more elongation than other 30% glass-reinforced grades of Amodel® resin. This grade was developed for automotive snap-fit electronic connectors. It offers high flow and short molding cycles. The processing window is relatively broad and mold temperatures as low as 150°F (65°C) can be used.

- Black: AT-6130 HS BK 324
- Natural: AT-6130 HS NT

General

Material Status	• Commercial: Active	
Availability	• Africa & Middle East • Asia Pacific • Europe	• Latin America • North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight	
Additive	• Heat Stabilizer • Impact Modifier	• Lubricant • Mold Release
Features	• Chemical Resistant • Good Flow • Heat Stabilized • High Heat Resistance • High Strength	• Hot Water Moldability • Impact Modified • Low Friction • Lubricated • Wear Resistant
Uses	• Automotive Applications • Automotive Electronics • Automotive Under the Hood • Bearings • Connectors • Fuel Lines • General Purpose	• Housings • Industrial Applications • Industrial Parts • Lawn & Garden Equipment • Machine/Mechanical Parts • Metal Replacement • Valves/Valve Parts
RoHS Compliance	• RoHS Compliant	
Automotive Specifications	• ASTM D4000 PPA0123 G30 KD150 KN080 PM095 PN095 YI255 LD002 Color: BK-324 Black • ASTM D4000 PPA0123 G30 KD150 KN080 PM095 PN095 YI255 LD002 Color: NT Natural • ASTM D6779 PA103G30 • DELPHI MS 5218 Color: BK-324 Black • DELPHI MS 5218 Color: NT Natural • GM GMP.PPA.017 Color: BK-324 Black • GM GMP.PPA.017 Color: NT Natural • GM GMW16363P-PPA-GF30 Color: Black • GM GMW16363P-PPA-GF30 Color: Natural • ISO 1874-PA 6T/66-HI, MH, 11-090, GF30	
Appearance	• Black	• Natural Color
Forms	• Pellets	
Processing Method	• Water-Heated Mold Injection Molding	

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Physical	Dry	Conditioned	Unit	Test method
Density	1.34	--	g/cm³	ISO 1183/A
Molding Shrinkage				ASTM D955
Flow	0.50	--	%	
Across Flow	0.80	--	%	
Water Absorption (24 hr)	0.15	--	%	ASTM D570

Mechanical	Dry	Conditioned	Unit	Test method
Tensile Modulus	9310	--	MPa	ISO 527-1
Tensile Strength				
Break	167	--	MPa	ASTM D638
Break	170	--	MPa	ISO 527-2
Tensile Elongation				
Break	3.2	--	%	ASTM D638
Break	3.3	--	%	ISO 527-2
Flexural Modulus				
--	7860	--	MPa	ASTM D790
--	7580	--	MPa	ISO 178
Flexural Stress				
--	225	--	MPa	ISO 178
Yield	236	--	MPa	ASTM D790

Impact	Dry	Conditioned	Unit	Test method
Charpy Notched Impact Strength	13	--	kJ/m²	ISO 179/1eA
Notched Izod Impact	130	--	J/m	ASTM D256
Unnotched Izod Impact	1400	--	J/m	ASTM D4812

Thermal	Dry	Conditioned	Unit	Test method
Deflection Temperature Under Load				
0.45 MPa, Unannealed	298	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	276	--	°C	ISO 75-2/A
Melting Temperature				
--	310	--	°C	ISO 11357-3
--	306	--	°C	ASTM D3418

Injection	Dry	Unit
Drying Temperature	121	°C
Drying Time	4.0	hr
Suggested Max Moisture	0.030 to 0.060	%
Rear Temperature	316 to 324	°C
Front Temperature	327 to 332	°C
Processing (Melt) Temp	321 to 335	°C
Mold Temperature	66 to 93	°C
Injection Rate	Fast	

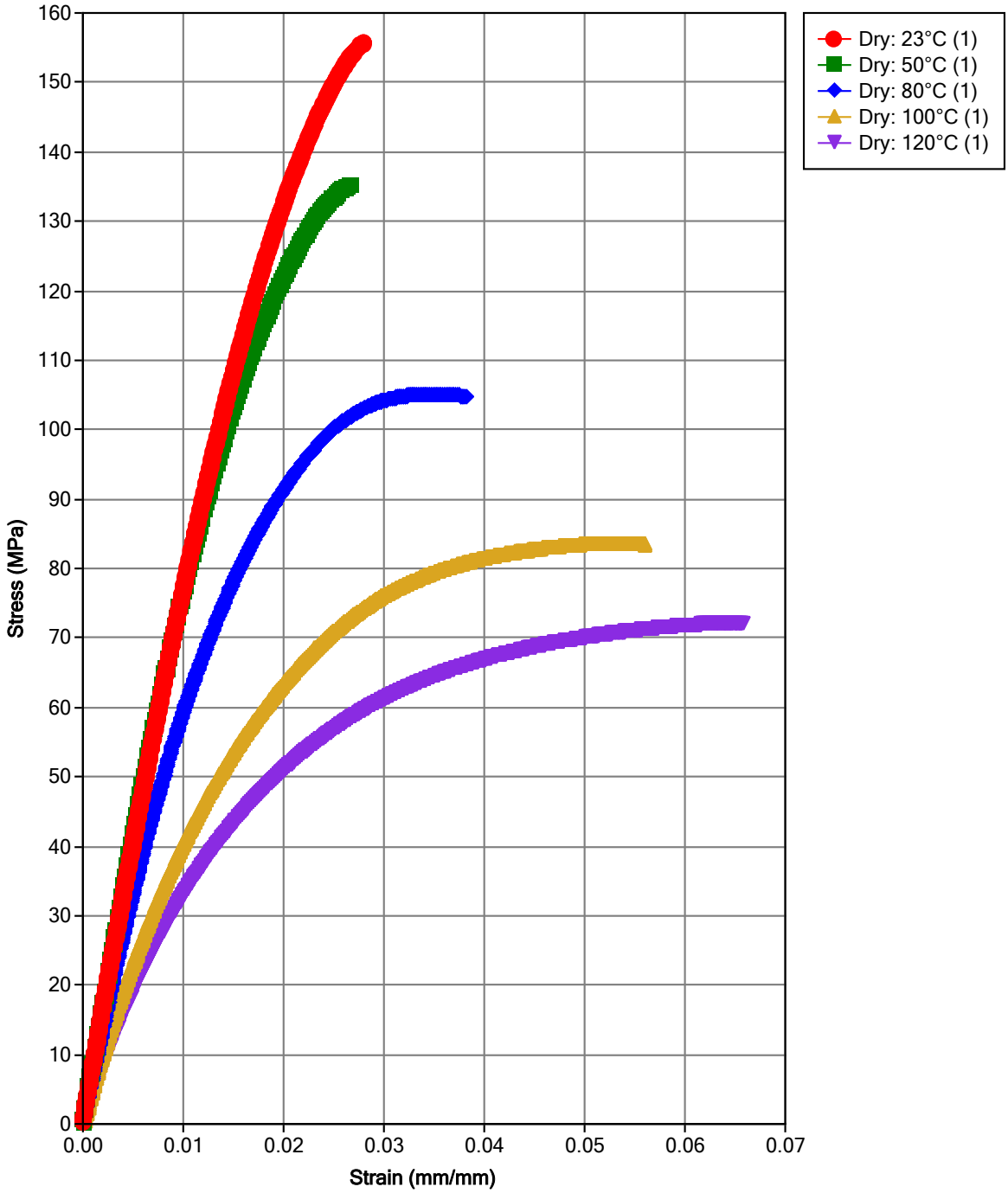
Injection Notes

Injection pressure between 2-4 in/sec (5-10 cm/sec). Adjust the holding pressure to one-half the injection pressure.

Storage:

- Amodel® compounds are shipped in moisture-resistant packages at moisture levels according to specifications. Sealed, undamaged bags should be preferably stored in a dry room at a maximum temperature of 50°C (122°F) and should be protected from possible damage. If only a portion of a package is used, the remaining material should be transferred into a sealable container. It is recommended that Amodel® resins be dried prior to molding following the recommendations found in this datasheet and/or in the Amodel® processing guide.

Isothermal Stress vs. Strain (ISO 11403)



Data Notes
(1) - ISO Protocol

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Notes
Typical properties: these are not to be construed as specifications.

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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.

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