

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	<ul style="list-style-type: none"> • Commercial: Active 	
Availability	<ul style="list-style-type: none"> • Africa & Middle East • Asia Pacific • Europe 	<ul style="list-style-type: none"> • Latin America • North America
Filler / Reinforcement	<ul style="list-style-type: none"> • Glass Fiber, 30% Filler by Weight 	
Additive	<ul style="list-style-type: none"> • Heat Stabilizer • Impact Modifier 	<ul style="list-style-type: none"> • Lubricant • Mold Release
Features	<ul style="list-style-type: none"> • Chemical Resistant • Good Flow • Heat Stabilized • High Heat Resistance • High Strength 	<ul style="list-style-type: none"> • Hot Water Moldability • Impact Modified • Low Friction • Lubricated • Wear Resistant
Uses	<ul style="list-style-type: none"> • Automotive Applications • Automotive Electronics • Automotive Under the Hood • Bearings • Connectors • Fuel Lines • General Purpose 	<ul style="list-style-type: none"> • Housings • Industrial Applications • Industrial Parts • Lawn and Garden Equipment • Machine/Mechanical Parts • Metal Replacement • Valves/Valve Parts
RoHS Compliance	<ul style="list-style-type: none"> • RoHS Compliant 	
Automotive Specifications	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Black 	<ul style="list-style-type: none"> • Natural Color
Forms	<ul style="list-style-type: none"> • Pellets 	
Processing Method	<ul style="list-style-type: none"> • Water-Heated Mold Injection Molding 	

Amodel® AT-6130 HS

polyphthalamide

Physical	Dry	Conditioned	Unit	Test method
Density	1.34	--	g/cm ³	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 527-2
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/m ²	ISO 179/1eA
Notched Izod Impact	130	--	J/m	ASTM D256
Unnotched Izod Impact	1400	--	J/m	ASTM D256

Thermal	Dry	Conditioned	Unit	Test method
Heat Deflection Temperature				
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	

Amodel® AT-6130 HS

polyphthalamide

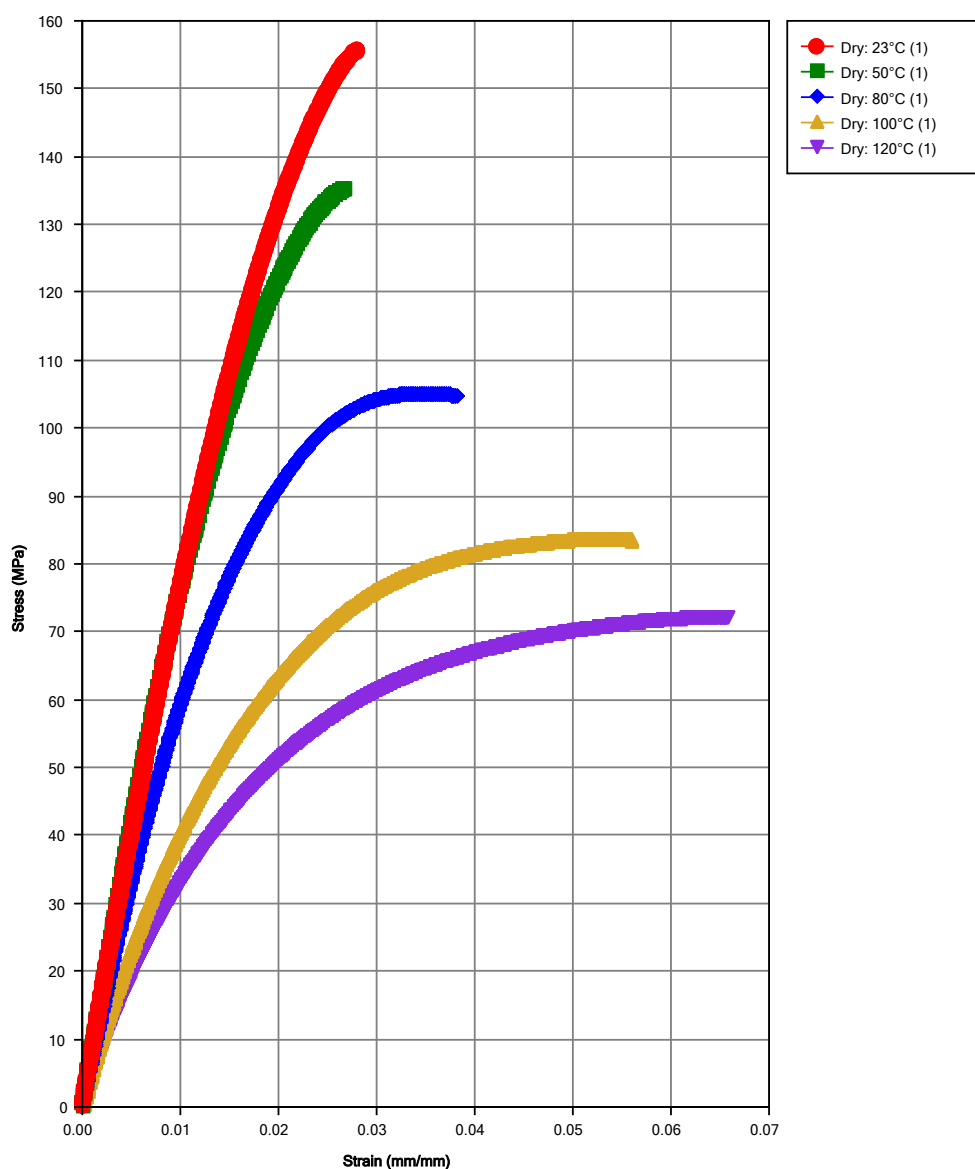
Injection Notes

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 11403-1)



Data Notes

(1) - ISO Protocol

Amodel® AT-6130 HS

polyphthalamide

Notes

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

www.solvay.com

SpecialtyPolymers.EMEA@solvay.com | Europe, Middle East and Africa

SpecialtyPolymers.Americas@solvay.com | Americas

SpecialtyPolymers.Asia@solvay.com | Asia and Australia

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.

Neither Solvay Specialty Polymers nor any of its affiliates makes any warranty, express or implied, including merchantability or fitness for use, or accepts any liability in connection with this product, related information or its use. Some applications of which Solvay's products may be proposed to be used are regulated or restricted by applicable laws and regulations or by national or international standards and in some cases by Solvay's recommendation, including applications of food/feed, water treatment, medical, pharmaceuticals, and personal care. Only products designated as part of the Solviva® family of biomaterials may be considered as candidates for use in implantable medical devices. The user alone must finally determine suitability of any information or products for any contemplated use in compliance with applicable law, the manner of use and whether any patents are infringed. The information and the products are for use by technically skilled persons at their own discretion and risk and does not relate to the use of this product in combination with any other substance or any other process. This is not a license under any patent or other proprietary right.

All trademarks and registered trademarks are property of the companies that comprise the Solvay Group or their respective owners.

© 2020 Solvay Specialty Polymers. All rights reserved.

