

Amodel® AT-6115 HS

polyphthalamide

Amodel® AT-6115 HS is a 15% glass-fiber reinforced, toughened grade of polyphthalamide (PPA) resin designed to possess more elongation than other 15% glass-fiber reinforced grades of Amodel resin. This grade was developed for automotive snap-fit electronic connectors. It offers high flow and short molding cycles.

- Black: AT-6115 HS BK 324
- Natural: AT-6115 HS NT

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific • Europe	• Latin America • North America	
Filler / Reinforcement	• Glass Fiber, 15% Filler by Weight		
Additive	• Heat Stabilizer • Impact Modifier	• Lubricant • Mold Release	
Features	• Fast Molding Cycle • Good Mold Release • Heat Stabilized • High Elongation	• High Flow • Impact Modified • Lubricated	
Uses	• Automotive Applications • Automotive Electronics • Automotive Under the Hood • Connectors • General Purpose • Housings	• Industrial Applications • Industrial Parts • Machine/Mechanical Parts • Metal Replacement • Valves/Valve Parts	
RoHS Compliance	• RoHS Compliant		
Automotive Specifications	<ul style="list-style-type: none"> • ASTM D4000 PPA0123 G15 GB121 KD100 KN042 PN068 YI242 • ASTM D6779 PA103G15 • DELPHI M-4628 Color: BK324 Black • DELPHI M-4628 Color: NT Natural • FORD WSS-M98P14-A3 • GM GMP.PPA.020 Color: BK-324 Black • GM GMP.PPA.020 Color: NT Natural • GM GMW16363P-PPA-GF15 Color: Black • GM GMW16363P-PPA-GF15 Color: Natural • ISO 1874 PA6T/66-HI, MH, 11-050, GF15 • PSA Peugeot-Citroën FTM64-0115 		
Appearance	• Black	• Natural Color	
Forms	• Pellets		
Processing Method	• Water-Heated Mold Injection Molding		

Physical	Dry	Conditioned	Unit	Test method
Density	1.22	--	g/cm ³	ISO 1183/A
Molding Shrinkage				ASTM D955
Flow	1.0	--	%	
Across Flow	1.1	--	%	

Amodel® AT-6115 HS

polyphthalamide

Physical	Dry	Conditioned	Unit	Test method
Water Absorption (24 hr)	0.20	--	%	ASTM D570
Mechanical	Dry	Conditioned	Unit	Test method
Tensile Modulus				
--	5380	4200	MPa	ASTM D638
23°C	5200	--	MPa	ISO 527-2
100°C	3100	--	MPa	ISO 527-2
Tensile Stress				
Break, 23°C	126	--	MPa	ISO 527-2
Break, 100°C	68.3	--	MPa	ISO 527-2
--	122	95.8	MPa	ASTM D638
Tensile Elongation				
Break	3.4	5.3	%	ASTM D638
Break, 23°C	4.1	--	%	ISO 527-2
Break, 100°C	7.7	--	%	ISO 527-2
Flexural Modulus				
--	4410	3450	MPa	ASTM D790
23°C	4270	--	MPa	ISO 178
100°C	2340	--	MPa	ISO 178
Flexural Strength				
--	165	115	MPa	ASTM D790
23°C	170	--	MPa	ISO 178
100°C	66.9	--	MPa	ISO 178
Compressive Strength	100	--	MPa	ASTM D695
Shear Strength	56.5	44.1	MPa	ASTM D732
Impact	Dry	Conditioned	Unit	Test method
Charpy Notched Impact Strength (23°C)	11	--	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	76	--	kJ/m ²	ISO 179/1eU
Notched Izod Impact				
--	91	80	J/m	ASTM D256
23°C	12	--	kJ/m ²	ISO 180/1A
Unnotched Izod Impact				
--	850	--	J/m	ASTM D256
23°C	55	--	kJ/m ²	ISO 180/1U
Thermal	Dry	Conditioned	Unit	Test method
Heat Deflection Temperature				
0.45 MPa, Unannealed	298	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	251	--	°C	ISO 75-2/A
1.8 MPa, Annealed	260	--	°C	ASTM D648
Melting Temperature	305	--	°C	ISO 11357-3 ASTM D3418
CLTE				ASTM E831
Flow : 0 to 100°C	2.2E-5	--	cm/cm/°C	
Flow : 100 to 200°C	3.0E-5	--	cm/cm/°C	
Transverse : 0 to 100°C	9.0E-5	--	cm/cm/°C	
Transverse : 100 to 200°C	1.2E-4	--	cm/cm/°C	

Amodel® AT-6115 HS

polyphthalamide

Additional Information

Conditioned Conditioned to 50% RH in accordance with ISO-1110, Accelerated Method.

Amodel® AT-6115 HS

polyphthalamide

Injection	Dry Unit
Drying Temperature	110 °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 Notes

Injection Rate: 2 to 4 in/sec

Holding Pressure: 50% of injection pressure

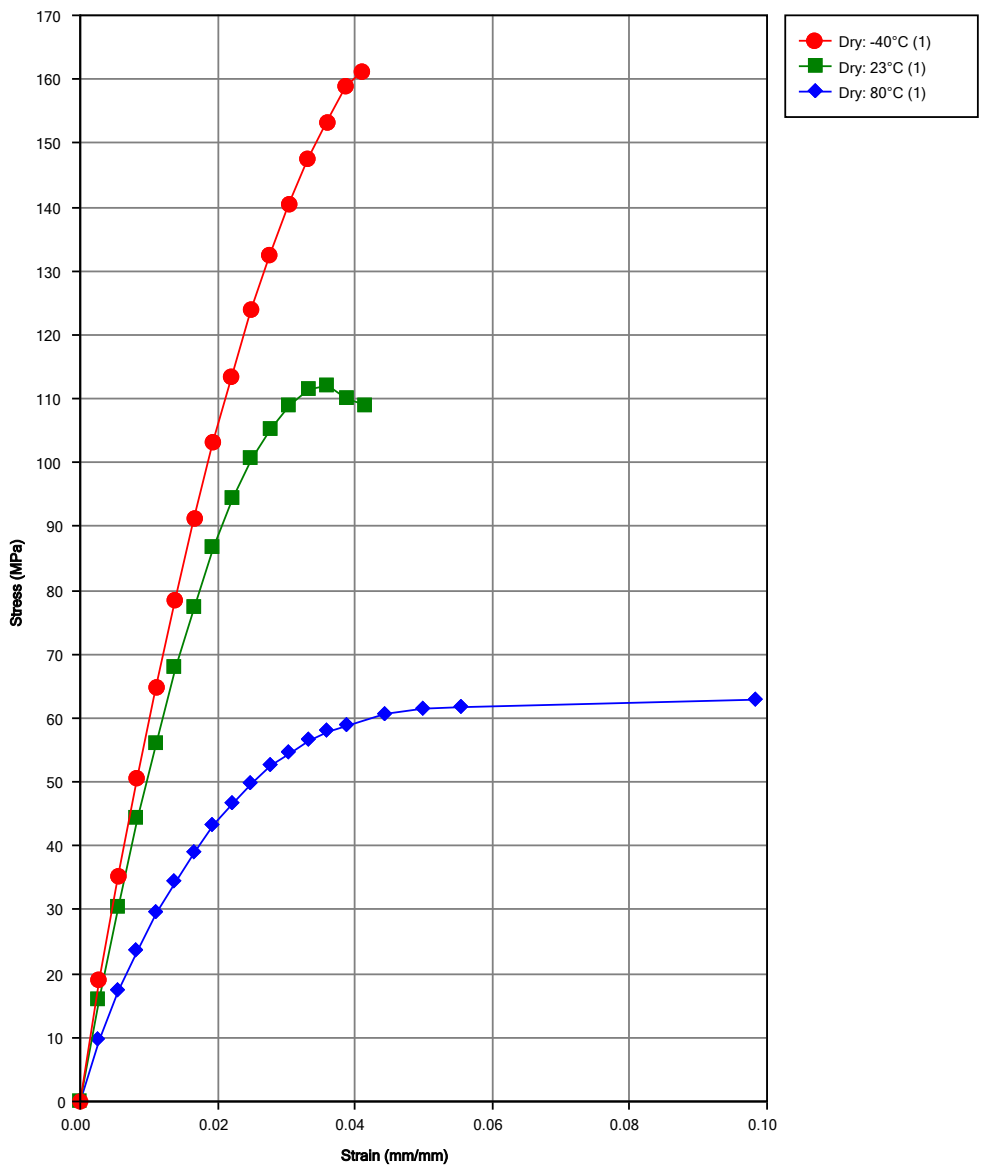
Storage:

- 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.
-

Amodel® AT-6115 HS

polyphthalamide

Isothermal Stress vs. Strain (ISO 11403-1)



Data Notes
(1) - ISO Protocol

Amodel® AT-6115 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.

© 2019 Solvay Specialty Polymers. All rights reserved.

