

## Solvay Specialty Polymers Amodel® AT-1125 HS Polyphthalamide (PPA) (Unverified Data\*\*)

Category : Polymer , Thermoplastic , Polyphthalamide (PPA) , Polyphthalamide (PPA), 30% Glass Fiber Reinforced

### Material Notes:

Amodel AT-1125 HS polyphthalamide (PPA) is a toughened, heat stabilized 25% glass reinforced resin, designed as a cost effective solution for applications requiring stiffness, good dimensional stability, chemical resistance and ductility. This resin has a high heat deflection temperature and a high flexural modulus, with greater tensile elongation than untoughened glass-reinforced PPA. Typical applications include bearings, bearing retainers/cages, housings, chemical processing equipment components, motor frames, sporting equipment, lawn and garden equipment and components that require press-fit or snap-fit assembly. - Black: AT-1125 HS BK 324 - Natural: AT-1125 HS  
NTData is presented for dry polymer unless noted as 'conditioned'. Information provided by Solvay Specialty Polymers.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Solvay-Specialty-Polymers-Amodel-AT-1125-HS-Polyphthalamide-PPA-nbspUnverified-Data.php](http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Amodel-AT-1125-HS-Polyphthalamide-PPA-nbspUnverified-Data.php)

Physical Properties	Metric	English	Comments
Density	1.35 g/cc	0.0488 lb/in <sup>3</sup>	ISO 1183/A
Filler Content	25 %	25 %	Glass Fiber Reinforcement
Water Absorption	0.20 % @Time 86400 sec	0.20 % @Time 24.0 hour	ASTM D570
Linear Mold Shrinkage, Flow	0.0040 cm/cm	0.0040 in/in	ASTM D955
Linear Mold Shrinkage, Transverse	0.0060 cm/cm	0.0060 in/in	ASTM D955

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	174 MPa	25200 psi	ASTM D638
	190 MPa	27600 psi	ISO 527-2
Elongation at Break	2.5 %	2.5 %	ISO 527-2
	3.2 %	3.2 %	ASTM D638
Tensile Modulus	8.48 GPa	1230 ksi	ASTM D638
	8.89 GPa	1290 ksi	ISO 527-2
Flexural Strength	240 MPa	34800 psi	ISO 178
Flexural Yield Strength	200 MPa	29000 psi	Conditioned; ASTM D790
	255 MPa	37000 psi	ASTM D790
Flexural Modulus	7.58 GPa	1100 ksi	ASTM D790

Mechanical Properties	7.58 GPa Metric	1100 ksi English	Conditioned; ASTM D790 Comments
	7.79 GPa	1130 ksi	ISO 178
Izod Impact, Notched	0.850 J/cm	1.59 ft-lb/in	Conditioned; ASTM D256
	1.20 J/cm	2.25 ft-lb/in	ASTM D256
	8.00 J/cm	15.0 ft-lb/in	Conditioned; ASTM D256
	11.0 J/cm	20.6 ft-lb/in	ASTM D256
Izod Impact, Notched (ISO)	8.80 kJ/m <sup>2</sup>	4.19 ft-lb/in <sup>2</sup>	ISO 180/1A
Charpy Impact, Notched	0.880 J/cm <sup>2</sup>	4.19 ft-lb/in <sup>2</sup>	ISO 179/1eA
Dart Drop, Total Energy	9.36 J	6.90 ft-lb	Conditioned; ASTM D3763
	13.8 J	10.2 ft-lb	ASTM D3763

Thermal Properties	Metric	English	Comments
Melting Point	311 °C	592 °F	Peak; ASTM D3418
	311 °C	592 °F	ISO 11357-3
Deflection Temperature at 0.46 MPa (66 psi)	279 °C	534 °F	Unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	235 °C	455 °F	Unannealed; ASTM D648
	280 °C	536 °F	Unannealed; ISO 75-2/A

Processing Properties	Metric	English	Comments
Feed Temperature	79.4 °C	175 °F	Hopper Temperature
Rear Barrel Temperature	304 - 318 °C	579 - 604 °F	
Front Barrel Temperature	316 - 329 °C	601 - 624 °F	
Melt Temperature	321 - 343 °C	610 - 649 °F	
Mold Temperature	135 °C	275 °F	
Drying Temperature	121 °C	250 °F	
Dry Time	4.00 hour	4.00 hour	
Moisture Content	0.10 %	0.10 %	

Descriptive Properties	Value	Comments
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Additive Descriptive Properties	Heat Stabilizer Value	Comments
	Impact Modifier	
Appearance	Black	
	Natural Color	
Automotive Specifications	ASTM D4000 PA123 G25	
	ASTM D4000 PPA0111 G25 KD160 KN075 LD002 PN080 YI250	
	ASTM D6779 PA123G25	
	ISO 1874 PA6T/6I/66-HI, MH, 12-080, GF25	
Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	North America	
	South America	
Features	Good Chemical Resistance	
	Good Dimensional Stability	
	Heat Stabilized	
	High Heat Resistance	
	Impact Modified	
Forms	Pellets	
Generic	PPA	
Processing Method	Injection Molding	
RoHS Compliance	RoHS Compliant	
Uses	Appliance Components	
	Appliances	
	Automotive Applications	
	Automotive Electronics	
	Automotive Under the Hood	
	Bearings	

Descriptive Properties	Value	Comments
	Fuel Lines	
	General Purpose	
	Housings	
	Industrial Applications	
	Industrial Parts	
	Lawn and Garden Equipment	
	Machine/Mechanical Parts	
	Metal Replacement	

## Contact Songhan Plastic Technology Co.,Ltd.

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