

Solvay Specialty Polymers Amodel® AT-5001 Polyphthalamide (PPA) Resin, Dry as Molded (discontinued **)

Category : Polymer , Thermoplastic , Polyphthalamide (PPA)

Material Notes:

AMODEL AT-5001 polyphthalamide resin is a neat ductile material that offers superior retention of properties after humid thermal aging, high impact at low temperature, and better mechanical properties than many unreinforced thermoplastic polyester and nylon resins especially after exposure to humid environments. These materials were specifically designed for automotive electrical and electronic applications such as connectors, sockets, and sensors. Additional applications include fuel systems where both the high elongation/ductility and superior low permeation performance to automotive fuels are needed. They can be processed readily using conventional injection molding equipment and methods. Information provided by Solvay Advanced Polymers

Order this product through the following link:

http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Amodel-AT-5001-Polyphthalamide-PPA-Resin-Dry-as-Molded-nbspdiscontinued-.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.10 g/cc	1.10 g/cc	ISO 1183A
	1.10 g/cc	1.10 g/cc	ASTM D792
Moisture Absorption at Equilibrium	0.50 %	0.50 %	24 hours; ASTM D570
Linear Mold Shrinkage	0.020 cm/cm	0.020 in/in	93°C; ASTM D955

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	53.0 MPa	7690 psi	ISO 527
Tensile Strength, Yield	57.0 MPa	8270 psi	ISO 527
	61.0 MPa	8850 psi	ASTM D638
Elongation at Break	15 %	15 %	ISO 527
Elongation at Yield	5.0 %	5.0 %	ISO 527
	30 %	30 %	ASTM D638
Tensile Modulus	2.30 GPa	334 ksi	ASTM D638
	2.30 GPa	334 ksi	ISO 527
	0.500 GPa	72.5 ksi	ISO 527
	@Temperature 100 °C	@Temperature 212 °F	
Flexural Strength	65.0 MPa	9430 psi	ISO 178
	92.0 MPa	13300 psi	ASTM D790

Mechanical Properties	Metric Pa	English	Comments
	@Temperature 100 °C	@Temperature 212 °F	ISO 178
Flexural Modulus	1.80 GPa	261 ksi	ISO 178
	2.10 GPa	305 ksi	ASTM D790
	0.400 GPa	58.0 ksi	ISO 178
	@Temperature 100 °C	@Temperature 212 °F	
Shear Strength	53.0 MPa	7690 psi	ASTM D732
Izod Impact, Notched	1.60 J/cm	3.00 ft-lb/in	ASTM D256
Izod Impact, Unnotched	NB	NB	ASTM D4812
Izod Impact, Notched (ISO)	14.0 kJ/m ²	6.66 ft-lb/in ²	ISO 180/1A
Izod Impact, Unnotched (ISO)	NB	NB	ISO 180/1U
Charpy Impact Unnotched	NB	NB	ISO 179/1eU
Charpy Impact, Notched	NB	NB	ISO 179/1eA
Dynatup @ -18°C	54.0 J	39.8 ft-lb	Total Energy. Dry as molded. No temperature indicated.; D3763
Dynatup @ -18°C Max Load	454000 g	1000 lb	No temperature indicated.; D3763

Thermal Properties	Metric	English	Comments
CTE, linear	94.0 µm/m-°C	52.2 µin/in-°F	
	@Temperature 0.000 - 800 °C	@Temperature 32.0 - 1470 °F	
Melting Point	300 °C	572 °F	ISO 11357-3
	300 °C	572 °F	ASTM D3418
Deflection Temperature at 0.46 MPa (66 psi)	88.0 °C	190 °F	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	84.0 °C	183 °F	ISO 75Af
	185 °C	365 °F	ASTM D648
Flammability, UL94	HB	HB	
Shrinkage	1.9 %	1.9 %	

Electrical Properties	Metric	English	Comments
-----------------------	--------	---------	----------

Volume Resistivity Electrical Properties	3.90e+15 ohm-cm Metric	3.90e+15 ohm-cm English	ASTM D257 Comments
Surface Resistance	3.80e+15 ohm	3.80e+15 ohm	ASTM D257
Dielectric Constant	3.2	3.2	ASTM D150
	@Frequency 60 Hz	@Frequency 60 Hz	
Dielectric Strength	3.2	3.2	ASTM D150
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Dielectric Strength	17.0 kV/mm	432 kV/in	ASTM D149
Dissipation Factor	0.0040	0.0040	ASTM D150
	@Frequency 60 Hz	@Frequency 60 Hz	
Dissipation Factor	0.016	0.016	ASTM D150
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Comparative Tracking Index	>= 600 V	>= 600 V	ASTM D3638
High Voltage Arc-Tracking Rate, HVTR	4.20 mm/min	0.165 in/min	UL 746A

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China