

## Solvay Specialty Polymers Amodel® AT-5001 Polyphthalamide (PPA) Resin, at 50% RH (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-at-50-RH-nbspdiscontinued-.php](http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Amodel-AT-5001-Polyphthalamide-PPA-Resin-at-50-RH-nbspdiscontinued-.php)

Physical Properties	Metric	English	Comments
Specific Gravity	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	0.019 cm/cm	0.019 in/in	93°C; ASTM D955

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	51.0 MPa	7400 psi	ASTM D638
Elongation at Yield	50 %	50 %	ASTM D638
Tensile Modulus	2.50 GPa	363 ksi	ASTM D638
Flexural Strength	71.0 MPa	10300 psi	ASTM D790
Flexural Modulus	1.90 GPa	276 ksi	ASTM D790
Shear Strength	47.0 MPa	6820 psi	ASTM D732
Izod Impact, Notched	8.00 J/cm	15.0 ft-lb/in	ASTM D256
Izod Impact, Unnotched	NB	NB	ASTM D4812
Dynatup @ -18°C	47.0 J	34.7 ft-lb	Total Energy. 50% RH. No temperature indicated.; D3763
Dynatup @ -18°C Max Load	408000 g	900 lb	No temperature indicated.; D3763

Thermal Properties	Metric	English	Comments
Melting Point	300 °C	572 °F	ASTM D3418

Thermal Properties	Metric	English	Comments
<b>Electrical Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
Volume Resistivity	2.50e+15 ohm-cm	2.50e+15 ohm-cm	ASTM D257
Surface Resistance	2.50e+15 ohm	2.50e+15 ohm	ASTM D257
Dielectric Constant	3.6	3.6	ASTM D150
	@Frequency 60 Hz	@Frequency 60 Hz	
Dielectric Strength	3.6	3.6	ASTM D150
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Dielectric Strength	17.0 kV/mm	432 kV/in	ASTM D149
Dissipation Factor	0.012	0.012	ASTM D150
	@Frequency 60 Hz	@Frequency 60 Hz	
Comparative Tracking Index	0.027	0.027	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	8.80 mm/min	0.346 in/min	UL 746A

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