

## Solvay Specialty Polymers Amodel® AE-8133 Polyphthalamide (PPA) (discontinued \*\*)

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

### Material Notes:

Amodel AE-8133 is a 33% glass reinforced polyphthalamide (PPA) designed to work in the modern automotive electrical environment. This grade features a high heat deflection temperature, high flexural modulus and high tensile strength, as well as excellent creep resistance and low moisture absorption. - Black: AE-8133 BK902 - Natural: AE-8133 NT  
Injection Notes: Injection Rate: 3-4 inch/second (7.5-10 cm/sec)  
Holding Pressure: 50% of injection pressure  
Data 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-AE-8133-Polyphthalamide-PPA-nbspdiscontinued-.php](http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Amodel-AE-8133-Polyphthalamide-PPA-nbspdiscontinued-.php)

Physical Properties	Metric	English	Comments
Density	1.49 g/cc	0.0538 lb/in <sup>3</sup>	ISO 1183/A
Filler Content	33 %	33 %	Glass Fiber Reinforcement
Water Absorption	0.16 % @Time 86400 sec	0.16 % @Time 24.0 hour	ASTM D570
Linear Mold Shrinkage, Flow	0.0040 cm/cm	0.0040 in/in	ASTM D955
Linear Mold Shrinkage, Transverse	0.0080 cm/cm	0.0080 in/in	ASTM D955

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	190 MPa @Temperature 23.0 °C	27600 psi @Temperature 73.4 °F	ISO 527-2
Elongation at Break	1.7 % @Temperature 23.0 °C	1.7 % @Temperature 73.4 °F	ISO 527-2
Tensile Modulus	13.6 GPa @Temperature 23.0 °C	1970 ksi @Temperature 73.4 °F	ISO 527-2
Flexural Strength	290 MPa @Temperature 23.0 °C	42100 psi @Temperature 73.4 °F	ISO 178
Flexural Modulus	11.9 GPa @Temperature 23.0 °C	1730 ksi @Temperature 73.4 °F	ISO 178
Izod Impact, Notched (ISO)	8.20 kJ/m <sup>2</sup>	3.90 ft-lb/in <sup>2</sup>	ISO 180/1A
	45.0 kJ/m <sup>2</sup>	21.4 ft-lb/in <sup>2</sup>	

<b>Izod Impact Unnotched (ISO)</b> <b>Mechanical Properties</b>	<b>Metric</b> @ Temperature 23.0 °C	<b>English</b> @ Temperature 73.4 °F	<b>ISO 180/1U</b> <b>Comments</b>
Charpy Impact Unnotched	5.40 J/cm <sup>2</sup>	25.7 ft-lb/in <sup>2</sup>	ISO 179/1eU
Charpy Impact, Notched	0.800 J/cm <sup>2</sup>	3.81 ft-lb/in <sup>2</sup>	ISO 179/1eA

<b>Thermal Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
CTE, linear, Parallel to Flow	24.0 µm/m-°C	13.3 µin/in-°F	TMA; ASTM E831
	@Temperature 0.000 - 100 °C	@Temperature 32.0 - 212 °F	
CTE, linear, Transverse to Flow	27.0 µm/m-°C	15.0 µin/in-°F	TMA; ASTM E831
	@Temperature 100 - 200 °C	@Temperature 212 - 392 °F	
CTE, linear, Transverse to Flow	55.0 µm/m-°C	30.6 µin/in-°F	ASTM E831
	@Temperature 0.000 - 100 °C	@Temperature 32.0 - 212 °F	
Melting Point	110 µm/m-°C	61.1 µin/in-°F	ASTM E831
	@Temperature 100 - 200 °C	@Temperature 212 - 392 °F	
Melting Point	325 °C	617 °F	ISO 11357-3
Deflection Temperature at 1.8 MPa (264 psi)	295 °C	563 °F	Unannealed; ISO 75-2/A
Glass Transition Temp, Tg	135 °C	275 °F	DSC
Flammability, UL94	HB	HB	UL 94
	@Thickness 3.20 mm	@Thickness 0.126 in	

<b>Electrical Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
Volume Resistivity	2.00e+15 ohm-cm	2.00e+15 ohm-cm	Conditioned; ASTM D257
	4.90e+15 ohm-cm	4.90e+15 ohm-cm	
Dielectric Constant	4.02	4.02	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Constant	4.3	4.3	Conditioned; ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Constant	4.35	4.35	ASTM D150
	@Frequency 60.0 Hz	@Frequency 60.0 Hz	

Electrical Properties	Metric	English	Comments
	@Frequency 60.0 Hz	@Frequency 60.0 Hz	Conditioned, ASTM D150
Dielectric Strength	18.0 kV/mm	457 kV/in	Conditioned; ASTM D149
	@Thickness 3.20 mm	@Thickness 0.126 in	
	18.0 kV/mm	457 kV/in	ASTM D149
	@Thickness 3.20 mm	@Thickness 0.126 in	
Dissipation Factor	0.0070	0.0070	ASTM D150
	@Frequency 60.0 Hz	@Frequency 60.0 Hz	
	0.0090	0.0090	Conditioned; ASTM D150
	@Frequency 60.0 Hz	@Frequency 60.0 Hz	
	0.016	0.016	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	0.022	0.022	Conditioned; ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Arc Resistance	120 sec	120 sec	Conditioned; ASTM D495
	140 sec	140 sec	
Comparative Tracking Index	600 V	600 V	Conditioned; UL 746
	600 V	600 V	

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	316 - 330 °C	601 - 626 °F	
Middle Barrel Temperature	316 - 330 °C	601 - 626 °F	
Front Barrel Temperature	324 - 340 °C	615 - 644 °F	
Melt Temperature	330 - 352 °C	626 - 666 °F	
Mold Temperature	150 - 165 °C	302 - 329 °F	
Drying Temperature	120 °C	248 °F	
Dry Time	4.00 hour	4.00 hour	
Moisture Content	0.030 - 0.060 %	0.030 - 0.060 %	

Descriptive Properties	Value	Comments
Appearance	Black	
	Natural Color	
Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	North America	
	South America	
Features	Good Chemical Resistance	
	Good Creep Resistance	
	Good Dimensional Stability	
	Good Stiffness	
	High Heat Resistance	
	High Stiffness	
	High Strength	
	High Temperature Strength	
	Low Moisture Absorption	
Flexural Strain (%)	2.5	
Forms	Pellets	
Generic	PPA	
Processing Method	Injection Molding	
Uses	Automotive Electronics	
	Connectors	
	Electrical Parts	
	Electrical/Electronic Applications	

**Contact Songhan Plastic Technology Co.,Ltd.**

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

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