

Amodel® AE-8930

polyphthalamide

Amodel® AE-8930 is a 30% glass reinforced polyphthalamide (PPA) designed to work in the modern automotive electrical environment.

- Black: AE-8930 BK938

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.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight		
Features	• Glycol Resistant • Good Chemical Resistance • Good Creep Resistance • Good Dimensional Stability	• Good Stiffness • High Heat Resistance • High Stiffness • High Strength	• High Temperature Strength • Low Moisture Absorption • Non-Corrosive
Uses	• Automotive Electronics • Connectors	• Electrical Parts • Electrical/Electronic Applications	
RoHS Compliance	• Contact Manufacturer		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical	Typical Value	Unit	Test method
Density	1.45	g/cm ³	ISO 1183/A

Mechanical	Typical Value	Unit	Test method
Tensile Modulus (23°C)	11900	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	210	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	2.3	%	ISO 527-2
Flexural Modulus (23°C)	11000	MPa	ISO 178
Flexural Stress (23°C)	300	MPa	ISO 178
Flexural Strain	2.9	%	ISO 178

Impact	Typical Value	Unit	Test method
Charpy Notched Impact Strength (23°C)	7.2	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	56	kJ/m ²	ISO 179/1eU
Notched Izod Impact Strength (23°C)	7.2	kJ/m ²	ISO 180/1A

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Thermal	Typical Value	Unit	Test method
Heat Deflection Temperature 1.8 MPa, Unannealed	290	°C	ISO 75-2/A
Glass Transition Temperature	135	°C	DSC
Melting Temperature	325	°C	ISO 11357-3

Electrical	Typical Value	Unit	Test method
Dielectric Constant			ASTM D150
60 Hz	4.35		
1 MHz	4.02		
Dissipation Factor (60 Hz)	7.0E-3		ASTM D150

Flammability	Typical Value	Unit	Test method
Flame Rating ¹ (3.20 mm)	HB		UL 94

Injection	Typical Value	Unit
Drying Temperature	120	°C
Drying Time	4.0	hr
Suggested Max Moisture	0.030 to 0.060	%
Rear Temperature	316 to 330	°C
Middle Temperature	316 to 330	°C
Front Temperature	324 to 340	°C
Processing (Melt) Temp	330 to 350	°C
Mold Temperature	150 to 165	°C

Injection Notes

Injection Rate: 3-4 inch/second (7.5-10 cm/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.

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Notes

Typical properties: these are not to be construed as specifications.

¹ These flammability ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions.

www.solvay.com

SpecialtyPolymers.EMEA@solvay.com | Europe, Middle East and Africa

SpecialtyPolymers.Americas@solvay.com | Americas

SpecialtyPolymers.Asia@solvay.com | Asia and Australia

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