

Amodel® AE-8935

polyphthalamide

Amodel AE-8935 is a 35% glycol resistant glass-reinforced heat stabilized polyphthalamide (PPA) resin designed to work in the modern automotive electrical environment. It is distinguished by a high heat deflection temperature, high flexural modulus, high tensile strength and low moisture

absorption. This grade displays excellent resistance to cracks which may occur during thermal shock cycling.

- Black: AE-8935 BK902

General

Material Status	• Commercial: Active
Availability	<ul style="list-style-type: none"> • Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Filler / Reinforcement	• Glass Fiber, 35% Filler by Weight
Features	<ul style="list-style-type: none"> • Chemical Resistant • Creep Resistant • Good Dimensional Stability • Good Stiffness • High Heat Resistance • High Stiffness • High Strength • High Temperature Strength • Low Moisture Absorption
Uses	<ul style="list-style-type: none"> • 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	1.47	g/cm ³	ISO 1183/A
Molding Shrinkage			ASTM D955
Flow	0.30	%	
Across Flow	0.80	%	
Water Absorption (Equilibrium)	0.16	%	ASTM D570

Mechanical	Typical Value	Unit	Test method
Tensile Modulus (23°C)	12600	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	220	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	2.4	%	ISO 527-2
Flexural Modulus (23°C)	12200	MPa	ISO 178
Flexural Stress (23°C)	300	MPa	ISO 178

Impact	Typical Value	Unit	Test method
Charpy Notched Impact Strength (23°C)	11	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	96	kJ/m ²	ISO 179/1eU

Thermal	Typical Value	Unit	Test method
Heat Deflection Temperature			ISO 75-2/A
1.8 MPa, Unannealed	290	°C	

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Electrical	Typical Value	Unit	Test method
Volume Resistivity	> 1.0E+16	ohms·cm	ASTM D257
Comparative Tracking Index (CTI)	> 600	V	UL 746

Flammability	Typical Value	Unit	Test method
Flame Rating ¹ (3.2 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 352	°C
Mold Temperature	150	°C

Injection Notes

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

Holding Pressure: 50% of injection pressure

Mold Temperature:

- Higher tool temperatures might be required for thin wall sections

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.

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.



Safety Data Sheets (SDS) are available by emailing us or contacting your sales representative. Always consult the appropriate SDS before using any of our products.

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