Amodel® AE-8950
polyphthalamide

Amodel® AE-8950 is a 50% 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. It also has improved hydrolytic stability and is glycol resistant.

- Black: AE-8950 BK938

General		
Material Status	• Commercial: Active	
Availability	• Africa & Middle East • Asia Pacific • Europe	• Latin America • North America
Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight	
Features	• Chemical Resistant • Creep Resistant • Good Dimensional Stability • Good Glycol Resistance • 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	1.68	g/cm³	ISO 1183/A

Mechanical	Typical Value	Unit	Test method
Tensile Modulus (23°C)	19800	MPa	ISO 527-1
Tensile Stress (Break, 23°C)	280	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	2.1	%	ISO 527-2
Flexural Modulus (23°C)	18500	MPa	ISO 178
Flexural Stress (23°C)	400	MPa	ISO 178
Flexural Strain	2.3	%	ISO 178

Impact	Typical Value	Unit	Test method
Charpy Notched Impact Strength (23°C)	12	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	80	kJ/m²	ISO 179/1eU
Notched Izod Impact Strength (23°C)	12	kJ/m²	ISO 180/1A

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Thermal	Typical Value	Unit	Test method
Deflection Temperature Under Load			ISO 75-2/A
1.8 MPa, Unannealed	300	°C	
Glass Transition Temperature	135	°C	DSC
Melting Temperature	325	°C	ISO 11357-3

Electrical	Typical Value	Unit	Test method
Comparative Tracking Index (CTI)	600	V	IEC 60112

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	310 to 330	°C
Middle Temperature	315 to 330	°C
Front Temperature	325 to 335	°C
Processing (Melt) Temp	320 to 345	°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.

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