Amodel® A-6440 L
polyphthalamide

Amodel® A-6440 is a 40% mineral-reinforced, hot-water moldable polyphthalamide (PPA) resin. Key properties include heat resistance, high strength and stiffness, and low moisture absorption. This grade is particularly suited for electronic applications, including LEDs, switches and sensors.

-Black: A-6440 L BK 287

General		
Material Status	• Limited Distribution	
Availability	• Africa & Middle East • Asia Pacific • Europe	• Latin America • North America
Filler / Reinforcement	• Mineral, 40% Filler by Weight	
Features	• Chemical Resistant • Fast Molding Cycle • High Stiffness	• Hot Water Moldability • Low Moisture Absorption
Uses	• Electrical/Electronic Applications	• LEDs
Appearance	• Black	
Forms	• Pellets	
Processing Method	• Injection Molding	

Physical	Typical Value	Unit	Test method
Density	1.54	g/cm³	ISO 1183/A
Molding Shrinkage			ASTM D955
Flow	0.50	%	
Across Flow	1.2	%	
Water Absorption (24 hr)	0.26	%	ASTM D570

Mechanical	Typical Value	Unit	Test method
Tensile Modulus	12000	MPa	ASTM D638
Tensile Strength (Break)	120	MPa	ASTM D638
Tensile Elongation (Break)	1.6	%	ASTM D638
Flexural Modulus	11000	MPa	ASTM D790
Flexural Strength	180	MPa	ASTM D790

Impact	Typical Value	Unit	Test method
Notched Izod Impact	35	J/m	ASTM D256
Unnotched Izod Impact	500	J/m	ASTM D4812

Thermal	Typical Value	Unit	Test method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	290	°C	
1.8 MPa, Unannealed	255	°C	

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Injection	Typical Value	Unit
Drying Temperature	120	°C
Drying Time	4.0	hr
Suggested Max Moisture	0.045	%
Rear Temperature	315 to 321	°C
Front Temperature	327 to 332	°C
Processing (Melt) Temp	329 to 335	°C
Mold Temperature	66 to 93	°C

Injection Notes

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.

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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.