

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/cm ³	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	

Amodel® A-6440 L

polyphthalamide

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.



www.syensqo.com

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.

Neither Syensqo nor any of its affiliates makes any warranty, express or implied, including merchantability or fitness for use, or accepts any liability in connection with this product, related information or its use. Some applications of which Syensqo's products may be proposed to be used are regulated or restricted by applicable laws and regulations or by national or international standards and in some cases by Syensqo's recommendation, including applications of food/feed, water treatment, medical, pharmaceuticals, and personal care. Only products designated as part of the Solviva® family of biomaterials may be considered as candidates for use in implantable medical devices. The user alone must finally determine suitability of any information or products for any contemplated use in compliance with applicable law, the manner of use and whether any patents are infringed. The information and the products are for use by technically skilled persons at their own discretion and risk and does not relate to the use of this product in combination with any other substance or any other process. This is not a license under any patent or other proprietary right.

All trademarks and registered trademarks are property of the companies that comprise the Syensqo or their respective owners.

© 2024 2023 Syensqo. All rights reserved.