

# Amodel® DW-1130

## polyphthalamide

Amodel® DW-1130 is a 30% glass-fiber-reinforced resin designed for high strength and stiffness and improved hydrolytic stability. This material has low moisture absorption and a low coefficient of thermal expansion, which means excellent dimensional stability. Creep resistance is also exceptional.

This grade has been approved for use with potable water in the United States, France, Germany, and the United Kingdom.

- Black: DW-1130 BK938

### General

Material Status	• Commercial: Active	
Availability	<ul style="list-style-type: none"> <li>• Africa &amp; Middle East</li> <li>• Asia Pacific</li> <li>• Europe</li> </ul>	<ul style="list-style-type: none"> <li>• Latin America</li> <li>• North America</li> </ul>
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight	
Features	<ul style="list-style-type: none"> <li>• Chemical Resistant</li> <li>• Chlorine Resistant</li> <li>• Creep Resistant</li> <li>• Good Dimensional Stability</li> </ul>	<ul style="list-style-type: none"> <li>• Good Stiffness</li> <li>• Good Strength</li> <li>• High Temperature Strength</li> <li>• Low Moisture Absorption</li> </ul>
Uses	<ul style="list-style-type: none"> <li>• Appliances</li> <li>• Consumer Applications</li> <li>• Filters</li> <li>• Housings</li> </ul>	<ul style="list-style-type: none"> <li>• Industrial Applications</li> <li>• Plumbing Parts</li> <li>• Pump Parts</li> <li>• Valves/Valve Parts</li> </ul>
RoHS Compliance	• RoHS Compliant	
Appearance	• Black	• Natural Color
Forms	• Pellets	
Processing Method	• Injection Molding	

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

Mechanical	Typical Value	Unit	Test method
Tensile Modulus	11900	MPa	ISO 527-1
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 Strain at Break (23°C)	2.9	%	ISO 178
Flexural Strength (Break, 23°C)	300	MPa	ISO 178

# Amodel® DW-1130

polyphthalamide

Impact	Typical Value	Unit	Test method
Charpy Notched Impact Strength	7.2	kJ/m <sup>2</sup>	ISO 179
Charpy Unnotched Impact Strength	56	kJ/m <sup>2</sup>	ISO 179
Notched Izod Impact Strength	7.2	kJ/m <sup>2</sup>	ISO 180

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

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

### 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.

**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.

