

# Amodel® FC-1150 (L)

## polyphthalamide

Amodel® FC-1150 and FC-1150 L is an FDA compliant, 50% glass fiber reinforced resin designed for high strength and stiffness (and improved demolding properties for the L grades). This combines with its excellent thermal properties, low water absorption and good hydrolytic stability to make it particularly

suited for components used in food service and consumer applications such coffee machines and ovens.

- Natural: FC-1150 (L) NT
- Black: FC-1150 (L) BK 946

### 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, 50% 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> <li>• Good Stiffness</li> </ul>	<ul style="list-style-type: none"> <li>• High Stiffness</li> <li>• High Strength</li> <li>• High Temperature Strength</li> <li>• Low Moisture Absorption</li> </ul>
Uses	<ul style="list-style-type: none"> <li>• Appliances</li> <li>• Housings</li> <li>• Non-specific Food Applications</li> </ul>	<ul style="list-style-type: none"> <li>• Plumbing Parts</li> <li>• Pump Parts</li> </ul>
Agency Ratings	<ul style="list-style-type: none"> <li>• EU 10/2011</li> <li>• FDA 21 CFR 176.170(c)</li> </ul>	• NSF STD-51
RoHS Compliance	• RoHS Compliant	
Appearance	• Black	• Natural Color
Forms	• Pellets	
Processing Method	• Injection Molding	

Physical	Typical Value	Unit	Test method
Density	1.67	g/cm <sup>3</sup>	ISO 1183/A
Molding Shrinkage			ASTM D955
Flow : 1.00 mm <sup>1</sup>	0.16	%	
Flow : 1.00 mm <sup>2</sup>	0.14	%	
Flow : 2.00 mm <sup>1</sup>	0.15	%	
Flow : 2.00 mm <sup>2</sup>	0.18	%	
Across Flow : 1.00 mm <sup>1</sup>	0.46	%	
Across Flow : 1.00 mm <sup>2</sup>	0.42	%	
Across Flow : 2.00 mm <sup>1</sup>	0.42	%	
Across Flow : 2.00 mm <sup>2</sup>	0.43	%	

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Mechanical	Typical Value	Unit	Test method
Tensile Modulus	19100	MPa	ISO 527-1
Tensile Stress (Break, 23°C)	270	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	2.0	%	ISO 527-2
Flexural Modulus (23°C)	18400	MPa	ISO 178
Flexural Stress	400	MPa	ISO 178
Flexural Strain (23°C)	2.40		ISO 178

Impact	Typical Value	Unit	Test method
Charpy Notched Impact Strength	12	kJ/m <sup>2</sup>	ISO 179
Charpy Unnotched Impact Strength	88	kJ/m <sup>2</sup>	ISO 179

Thermal	Typical Value	Unit	Test method
Deflection Temperature Under Load 1.8 MPa, Unannealed	300	°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
- Minimum mold temperature for typical article thickness is 150°C (302°F)

#### 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.

<sup>1</sup> Pressure = 500 bar

<sup>2</sup> Pressure = 750 bar

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