

## Amodel® FC-1120 L

### polyphthalamide

Amodel® FC-1120 L is an FDA compliant, 20% glass fiber reinforced resin designed for high strength and stiffness. 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: Amodel® FC-1120 L NT

#### General

|                        |   |   |
|------------------------|---|---|
| Material Status        | • Limited Distribution  |   |
| Availability           | • Africa & Middle East<br>• Asia Pacific<br>• Europe  | • Latin America<br>• North America  |
| Filler / Reinforcement | • Glass Fiber, 20% Filler by Weight   |   |
| Features               | • Chemical Resistant<br>• Chlorine Resistant<br>• Creep Resistant<br>• Good Dimensional Stability | • High Stiffness<br>• High Strength<br>• High Temperature Strength<br>• Low Moisture Absorption |
| Uses                   | • Appliances<br>• Housings<br>• Non-specific Food Applications                                    | • Plumbing Parts<br>• Pump Parts  |
| Agency Ratings         | • EU 10/2011  | • FDA 21 CFR 176.170(c)   |
| RoHS Compliance        | • RoHS Compliant  |   |
| Appearance             | • Natural Color   |   |
| Forms                  | • Pellets   |   |
| Processing Method      | • Injection Molding   |   |

| Physical | Typical Value | Unit              | Test method |
|----------|---------------|-------------------|-------------|
| Density  | 1.38          | g/cm <sup>3</sup> | ISO 1183/A  |

| Mechanical                   | Typical Value | Unit | Test method |
|------------------------------|---------------|------|-------------|
| Tensile Modulus              | 8900          | MPa  | ISO 527-1   |
| Tensile Stress (Break, 23°C) | 160           | MPa  | ISO 527-2   |
| Tensile Strain (Break, 23°C) | 2.0           | %    | ISO 527-2   |
| Flexural Modulus (23°C)      | 8400          | MPa  | ISO 178     |
| Flexural Stress              | 230           | MPa  | ISO 178     |
| Flexural Strain (23°C)       | 2.80          |      | ISO 178     |

| Impact                         | Typical Value | Unit              | Test method |
|--------------------------------|---------------|-------------------|-------------|
| Notched Izod Impact Strength   | 6.3           | kJ/m <sup>2</sup> | ISO 180     |
| Unnotched Izod Impact Strength | 35            | kJ/m <sup>2</sup> | ISO 180     |

# Amodel® FC-1120 L

## polyphthalamide

| Thermal                           | Typical Value | Unit | Test method |
|-----------------------------------|---------------|------|-------------|
| Deflection Temperature Under Load |               |      |             |
| 0.45 MPa, Unannealed              | 297           | °C   | ISO 75-2/B  |
| 1.8 MPa, Unannealed               | 275           | °C   | ISO 75-2/A  |

| 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.

