

# Amodel® A-1130 FW

## polyphthalamide

Amodel® A-1130 FW is a 30% glass-fiber reinforced polyphthalamide (PPA) grade containing a solid lubricant. This resin was designed for moderate-pressure, low-velocity friction and wear applications.

- Black: A-1130 FW BK 324

### General

|                           |   |   |
|---------------------------|---|---|
| Material Status           | • Commercial: Active  |   |
| Availability              | • Africa & Middle East<br>• Asia Pacific<br>• Europe  | • Latin America<br>• North America                    |
| Filler / Reinforcement    | • Glass Fiber, 30% Filler by Weight   |   |
| Additive                  | • PTFE Lubricant  |   |
| Features                  | • Chemical Resistant<br>• Creep Resistant<br>• Good Dimensional Stability<br>• Good Stiffness | • High Strength<br>• Low Friction<br>• Wear Resistant |
| Uses                      | • Bearings<br>• Bushings  | • Filters<br>• Gears                                  |
| RoHS Compliance           | • RoHS Compliant  |   |
| Automotive Specifications | • ASTM D6779 PA1270G30  | • ISO 1874-PA6T/6I/66, MH, 11-110, GF30               |
| Appearance                | • Black   |   |
| Forms                     | • Pellets   |   |
| Processing Method         | • Injection Molding   |   |

| Physical | Typical Value | Unit              | Test method |
|----------|---------------|-------------------|-------------|
| Density  | 1.55          | g/cm <sup>3</sup> | ISO 1183/A  |

| Mechanical             | Typical Value | Unit | Test method |
|------------------------|---------------|------|-------------|
| Tensile Modulus        | 11200         | MPa  | ISO 527-2   |
| Tensile Stress (Break) | 187           | MPa  | ISO 527-2   |
| Tensile Strain (Break) | 2.0           | %    | ISO 527-2   |
| Flexural Modulus       | 9580          | MPa  | ISO 178     |
| Flexural Stress        | 252           | MPa  | ISO 178     |

| Thermal  | Typical Value | Unit | Test method |
|--|---------------|------|-------------|
| Heat Deflection Temperature<br>1.8 MPa, Unannealed | 285           | °C   | ISO 75-2/A  |
| Melting Temperature                                | 313           | °C   | ISO 11357-3 |

| Injection              | Typical Value  | Unit |
|------------------------|----------------|------|
| Drying Temperature     | 110            | °C   |
| Drying Time            | 4.0            | hr   |
| Suggested Max Moisture | 0.030 to 0.060 | %    |
| Rear Temperature       | 304 to 318     | °C   |

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| Injection              | Typical Value | Unit |
|------------------------|---------------|------|
| Front Temperature      | 316 to 329    | °C   |
| Processing (Melt) Temp | 329 to 343    | °C   |
| Mold Temperature       | 135           | °C   |

## Injection Notes

### Storage:

- Amodel® PPA 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® PPA resins be dried prior to molding following the recommendations found in this datasheet and/or in the Amodel® PPA processing guide.

## Notes

Typical properties: these are not to be construed as specifications.

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