



**Wellamid®**  
**ENGINEERING RESIN**

## **Guide to Molding**

### **Wellamid® FR1841-BK1**

*Unfilled Flame Retardant Nylon Resin (PA66)*

<b>Screw Machine</b>	<b>°F</b>	<b>°C</b>
<b>Rear Zone</b>	<b>510 - 560</b>	<b>266 – 293</b>
<b>Middle Zone</b>	<b>500 - 560</b>	<b>260 - 293</b>
<b>Front Zone</b>	<b>500 - 560</b>	<b>260 – 293</b>
<b>Nozzle Temp</b>	<b>490 - 560</b>	<b>254 – 293</b>
<b>Melt Temp</b>	<b>520 - 560</b>	<b>271 – 293</b>
<b>Mold Temp</b>	<b>160 - 200</b>	<b>71 – 93</b>
<b>Injection Pressure</b>	<b>5,000 – 20,000 PSI</b>	<b>34 – 138 MPa</b>
<b>Back Pressure</b>	<b>50 - 150 PSI</b>	<b>0.34 – 1.03 MPa</b>
<b>Screw RPM</b>	<b>30 – 120 RPM</b>	<b>30 – 120 RPM</b>

#### **DRYING**

**Wellamid®** nylon resins shipped in bags are ready to mold with moisture content below 0.15%.

Nylon resins are hygroscopic and must be molded at a moisture level between .05% - .15% for best results. All **Wellamid®** nylon resins residing in opened bags or Gaylord boxes should be dried for 2 to 4 hours at 175°F prior to molding. It is highly recommended to check the moisture content of the material before and during the molding process. Maintaining a moisture level between .05% - .15% helps prevent degradation which manifests itself by splay marks, low physical properties, brittleness, and nozzle drool.

#### **PROCESSING**

Although not required, Wellman Engineering Resins highly recommends running a reverse heat profile on all **Wellamid®** nylon resins. This method produces a more homogenous melt and also assists in the control of nozzle drool. Reverse-taper nozzle tips are always recommended with the use of **Wellamid®** nylon resins also.

For further technical information please go to [www.wellmanam.com](http://www.wellmanam.com) or call 1 800 821-6022.