

POLYETHERETHERKETONE PROCESSING PARAMETERS

General Recommendations:

- Screw rotational speed (RPM)
 - High screw speeds possible but not usually necessary as Polyetheretherketone is left often molded into thick sections
- Back pressure
 - A small amount of back pressure will prevent the screw from coming out of the barrel
- Shutting down for overnight stops
 - Purge out with high temperature purging compound as if Polyetheretherketone is left in the barrel during cooling, barrel damage may result because of the strong adhesion that can develop between metal and the plastic
 - Only shut the machine down when ALL of the Polyetheretherketone has been cleaned out

Drying Conditions:

- 3 hours at 150°C

Injection Speed and Injection Pressure:

- It is recommended to use 300-750 psi screw back pressure and 10,000 - 20,000 psi specific injection pressure

Processing Conditions:

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|--------------------|---------------|
| ▪ Melt Temperature | 370°C - 390°C |
| ▪ Barrel rear | 340°C - 360°C |
| ▪ Barrel middle | 360°C - 380°C |
| ▪ Barrel front | 370°C - 390°C |
| ▪ Nozzle | 370°C - 390°C |
| ▪ Mold | 160°C - 190°C |

Use of Regrind:

- It is not recommended to use more than 20% of regrind material and expect slight decreases in mechanical properties when it is utilized.