

## PBT PROCESSING PARAMETERS

### General Recommendations:

- Reciprocating screw machines
- Nylon or general purpose screw
- Flow through nozzle
- Reverse taper nozzle
- High hardness tool
- Optimal shot size: 40-60% of barrel capacity

### Drying Conditions:

- 4 hours at 250° F in an oven or hopper dryer (desiccant dryer) is optimal
- Material should be dried to a 0.2% moisture level

### Injection Speed and Injection Pressure:

- To obtain the best possible surface finish, a moderate to fast injection speed is recommended. With glass and mineral filled materials, fast injection speeds are recommended. To achieve 95% mold fill of the part during the first injection state, a minimum injection pressure should be utilized and hold pressure should be 30 - 75% of the initial pressure.

### Processing Conditions:

- Melt Temperature 455° F - 475° F
- Target Temperature 460° F
- Mold Temperature 150° F - 180° F
- Target Temperature 165° F
- Cylinder Temperature 450° F - 525° F
- Back Pressure 50-100 psi
- Screw Speed 30-60 RPM
- Target Screw Speed 50 RPM
- Hold Pressure 30-75% of the injection pressure
- Cycle Time
  - Varies with part size and mold temperature

### 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.