

NYLON 6 PROCESSING PARAMETERS

General Recommendations:

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

Drying Conditions:

- 2-3 hours at 200° F in an oven or hopper 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 490° F - 520° F
- Target Temperature 510° F
- Mold Temperature 160° F - 200° F
- Target Temperature 180° F
- Cylinder Temperature 480° 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.