

Base Resin

TPU
(Thermoplastic Polyurethane)

Compound Type



Ecomass Compound - 4703 Series - Moderate Density

Processing Method

Injection Molding

Process Guidelines

Processing Conditions

Material Drying

- Melt Temperature Range..... 400 - 430 °F
- Mold Temperature Range..... 50 - 80 °F

- Injection Pressure..... As required
- Pack (Hold) Pressure..... 65 - 75% of Inj. Psi
- Back Pressure..... 15 - 25 psi

- Injection Speed..... Medium - Fast
- Screw Speed..... 100 - 250 rpm

- Fill Time..... 1.0 - 2.0 in. / sec.
- Pack (Hold) Time²..... 10 - 15 sec.
- Cooling Time..... As required

- Cushion..... .25 - .50 in.

- Dryer Type(s)..... Dehumidifying

- Drying Temperature Range... 180°F

- Typical Drying Time¹..... **2 hours, reduce to 160°F - do not over-dry**
- **Do Not Exceed..... 4 hours total**

- Dryer Dew Point..... -20 to -40°F

- Minimum Air Flow..... 0.8 - 1.0 CFM

- Properly Functioning..... Dessicant Beds
Filters
Volatiles Trap

Molding Machine Requirements

Safety / Purging

- Screw L/D..... 20:1 min.
- Screw Compression Ratio.... 2.5:1 min.

- Feed Throat..... Cooled

- Nozzle Type..... Reverse taper
- Check Ring Type..... Free flow

- Typical Clamp Tonnage..... 2.5 - 4.0 tons/in²

- Maintain adequate ventilation.

- Wear safety glasses & protective clothing.

- Do not mix with other materials.

- Avoid excessive residence time in the barrel.
(Purge if extended residence time is anticipated)

Abrasion Resistant Screw, Barrel & Check Ring

Purge with high viscosity HDPE or high temperature commercial purge compound as recommended.

Notes

¹ Typical Drying time assumes unopened packaging and utilization of a dehumidifying dryer with a dewpoint of -40° with sufficient air flow.

² Pack time can depend on wall thickness and gate design

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