



# Marlex® Polyethylene Resins

## Injection Molding Processing Recommendations

### General Recommendations:

- Rear Temperature: 340 – 390°F (171 – 199°C)
- Middle, Front, and Nozzle Temps: 380 – 470°F (193 – 243°C)
- Mold Temperature: 45 – 125°F (7 – 52°C)
- Suggested shot size: 50 to 70% of the machine’s capacity
- Pressure on first stage injection should be ~10% below setpoint
- Maximize the filling of the part in the injection stage (“99%” full)
- Minimize the hold/pack pressure
- Return screw speed: 30 to 80%, returning just before mold opens
- Back Pressure: 50 to 150 psi.
- Stock Temperature should kept within the range given below according to the melt flow of the resin grade:

<u>Melt Flow</u> <u>(g/10min)</u>	<u>Stock</u> <u>Temperature</u>
0.X to 5	410 – 500°F (210 – 260°C)
6 to 10	390 – 480°F (199 – 249°C)
11 to 15	380 – 470°F (193 – 243°C)
16 to 20	370 – 460°F (188 – 238°C)
21 to 30	370 – 450°F (188 – 232°C)
31 to 40	370 – 430°F (188 – 221°C)
41 to 50	370 – 420°F (188 – 216°C)

### Considerations:

- The above conditions are general recommendations. Specific applications may require conditions outside the given ranges. Melt temperatures above 500°F (260°C) may cause resin degradation and changes to resin properties. Keeping materials at melt temperatures for extended periods of time may also cause resin degradation. For additional assistance, contact your CPChem injection molding technical service representative.

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