

# Injection Molding of CALIBRE™ 303EP-22 Polycarbonate Resin

## Drying Recommendations

**Moisture Content:** It is recommended to dry this resin to less than 0.02% moisture.

**Dryer:** A desiccant-type dryer is recommended for this material. Hopper dryer may also be needed.

**Dew Point:** -20°F (-30°C) or lower is desired.

**Drying Time:** A minimum of 4 hours at 250°F (120 °C) is recommended

## Equipment Specifications

**Shot Size:** As required to fill part.

**Clamp Tonnage:** 2.5-3.0 tons/in<sup>2</sup> (0.28-0.70 metric tons/cm<sup>2</sup>) of projected surface area.

**Barrel Capacity:** 40-70% of machine barrel size should be for part shot.

## Process Conditions

**Melt Temperature:** Can be varied as required to fill part. See Table 1.

**Mold Temperature:** Can be changed to affect gloss or demolding characteristics. See Table 1.

**Manifold/Drop Temperature:** 30-50°F (17-28°C) below melt temperature. See Table 1 for recommended melt temperatures and adjust manifold/drop temperature accordingly.

**Purging/Shutdown:** For short interruptions in production, empty the barrel and reduce barrel temperatures. For extended shutdowns, purge the machine with a purging compound or general purpose polystyrene before shutting down machine.

Table 1: Machine Temperature Recommendations

Temperatures	Range, °F (°C)	Aim, °F (°C)
Melt Temperature	500-530 (260-277)	515 (268)
Mold Temperature	160-200 (71-93)	180 (82)
Barrel – Feed	470-500 (243-260)	485 (252)
Barrel – Transition	490-520 (254-271)	505 (263)
Barrel – Metering	500-530 (260-277)	515 (268)
Nozzle	500-530 (260-277)	515 (268)

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.



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