

Injection Molding of EMERGE™ PC 8600-20 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 typical, but dependent on dryer temperature.

Equipment Specifications

Shot Size: As required to fill part.

Clamp Tonnage: 2.0-5.0 tons/in² (0.28-0.70 metric tons/cm²) 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 demolding characteristics. See Table 1.

Manifold/Drop Temperature: The manifold/drop temperature is typically set the same as the melt temperature. Depending on the tooling design, the manifold/drop temperature may be reduced up to 30° F (17°C) below the melt temperature to improve aesthetics and/or minimize material degradation.

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	500-550 (260-290)	520 (270)
Mold Temperature	150-200 (60-90)	180 (83)
Barrel – Feed	465-510 (240-270)	480 (250)
Barrel – Transition	470-520 (240-270)	485 (250)
Barrel – Metering	470-520 (240-270)	500 (260)
Nozzle	490-540 (255-280)	515 (270)

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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