

Injection Molding of EMERGE™ PC/ABS 7100 Advanced 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.

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

Drying Time: A minimum of 4 hours at 180-190°F (80-90 °C) is recommended.

Equipment Specifications

Shot Size: As required to fill part.

Clamp Tonnage: 2.5-3.0 tons/in² (0.35-0.42 tonnes/cm²) of projected surface area.

Barrel Capacity: 40-60% 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: 20-40°F (10-20°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	460-550 (240-290)	490 (255)
Mold Temperature	120-195 (50-90)	180 (80)
Barrel – Feed	430-480 (220-250)	450 (230)
Barrel – Transition	440-500 (230-260)	460 (240)
Barrel – Metering	460-510 (240-265)	490 (255)
Nozzle	460-510 (240-265)	490 (255)

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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