

Injection Molding of CALIBRE™ 5101-8 Glass-Reinforced 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: 3.0 - 6.0 tons/in² (0.42 – 0.84 tonnes/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 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	560-610 (293-321)	585 (307)
Mold Temperature	180-240 (82-116)	210 (99)
Barrel – Feed	550-570 (288-299)	560 (293)
Barrel – Transition	550-590 (288-310)	570 (299)
Barrel – Metering	560-610 (293-321)	585 (307)
Nozzle	560-610 (293-321)	585 (307)

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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