STYRON™

Processing Conditions
Quick Reference

Injection Molding of
MAGNUM™ 2642 MED ABS 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 2 hours at 180-185°F (82-85°C) is recommended.

Equipment Specifications

Shot Size: As required to fill part.

Clamp Tonnage: 2.0-3.0 tons/in^2 (0.28-0.42 tonnes/cm^2) of projected surface area.

Barrel Capacity: Minimum of three times shot size, but no greater than six times shot size (i.e.: if shot is 10 oz., barrel capacity should be 30-40 oz., but no greater than 60 oz.). For short barrel machines, if shot size exceeds 50% of barrel capacity, increase "feed" and "transition" barrel temperatures by 15°F (8°C).

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: Range of15-25°F (8-14°C), aim of 20°F (11°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	450-480 (232-249)	465 (241)
Mold Temperature	80-120 (27-49)	100 (38)
Barrel – Feed	360-390 (182-199)	375 (191)
Barrel – Transition	410-440 (210-227)	425 (218)
Barrel – Metering	435-465 (224-241)	450 (232)
Nozzle	445-475 (229-246)	465 (241)

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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