Polifil® Glass Reinforced ABS

Handling

ABS resins absorb moisture from the atmosphere. Reseal opened containers as soon as possible. To avoid condensation on the resin during cold weather, material should be stored in unopened containers at room temperature for at least 24 hours.

Pre-Drying

ABS resins generally should be dried prior to molding. Recommended drying conditions are 2 hours at 180°F (82°C), or 4 hours at 160°F (71°C). A dehumidified air (dessicant) dryer is recommended but simple hot air dryers may also be used. Return air filters should be checked regularly to insure proper air flow. DO NOT dry in excess of 12 hours or discoloration and property deterioration will result.

Mold Surface Temperature

Higher mold temperatures generally produce higher luster on parts molded from ABS, with lower molded-in stress. Due to the glass content, however, surface quality will be limited. Mold surface temperatures should be maintained within a range of 100-150°F (38-66°C) for most applications.

Molding Temperatures

Stock melt temperatures should be kept within a range of 425-520°F (218-271°C), with best results normally obtained in the middle. Shot size, part geometry, residence time, and cooling patterns should all be considered.

Recommended zone settings are as follows:

REAR	400-420°F	(204-216°C)
MIDDLE	410-430°F	(210-221°C)
FRONT	430-450°F	(221-232°C)
NOZZLE	440-450°F	(227-232°C)

Machine Settings

ABS generally requires moderate injection speeds and pressures. Excessive injection speeds will produce shear-related streaks at gates. Glass fibers produce a stiffer melt flow, and small diameter gates (submarine, tunnel, pin-point) may be difficult to fill. Lower screw speed, 30-60 RPM, and low to moderate back pressure, 25-75 psi, should be used to avoid shear breakage of glass fibers and resulting physical property losses.