



## PROCESSING GUIDELINES

# TRIBOFORCE<sup>®</sup> PPS

### GENERAL

**TRIBOFORCE<sup>®</sup> PPS** resins can be molded with usual types of molding machines. In principle the same processing conditions as for standard reinforced PPS fit for **TRIBOFORCE<sup>®</sup> PPS**. Due to the high processing temperature and the abrasion of reinforced PPS, for barrel, screw and hot runner systems wear resistant steel must be specified. Heated, open nozzles are recommended for use in molding. For best molding and good part quality the actual shot size should be between 10 % and 70 % of the machine rated capacity and the screw design should be appropriate. A back-flow valve is necessary for molding.

### MATERIAL STORAGE AND DRYING

**TRIBOFORCE<sup>®</sup> PPS** resins are supplied dry (less than 0.2 % moisture by weight) in moisture-proof shipping containers. We recommend dry storage areas. The required final water content for best molding and part quality is less than 0.05 %, therefore we recommend pre-drying in a hopper dryer working with dehumidified air (dewpoint below - 30 °C) or an oxygen-free environment (vacuum oven) at 110 to 120 °C for minimum 3 hours. After drying hygroscopic materials have to be protected against atmospherical moisture.

### RECOMMENDED MACHINE PARAMETERS | MOLD TEMPERATURE

Parameter	Range
dosing speed	less than 30 m/min.
back pressure	up to 40 bar
melt temperature	310 °C to 340 °C
injection pressure	up to 1400 bar
follow-up pressure	500 to 1000 bar
injection speed	high
mold temperature	140 °C to 160 °C

For good part quality and increase of flow length we recommend mold temperatures above 140 °C. A common purging material for downtimes and shut down are high viscosity polyolefines.

The specified values are given as a guide only. The values actually required will be a function of the geometry and the desired quality of the injection moulded part, in particular.

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