

Zytel® ST7301 NC010

NYLON RESIN

Zytel® ST7301 NC010 is a Super Tough, heat stabilised, lubricated polyamide 6 resin for injection moulding and extrusion. It offers outstanding impact resistance over a wide temperature and humidity range and high productivity.

General Information

Resin Identification ISO 1043

Density ISO 1183

PA6-HI

1060/- kg/m³

Drying

Drying Recommended

Drying Temperature**

Drying Time*

Processing Moisture Content - Optimum**

Processing Moisture Content

yes

80 °C

2 - 4 h

0.1 %

≤0.2 %

Temperature settings

Melt Temperature Optimum Internal

270 °C

Min. melt temperature***

260 °C

Max. melt temperature

280 °C

Mold Temperature Optimum

70 °C

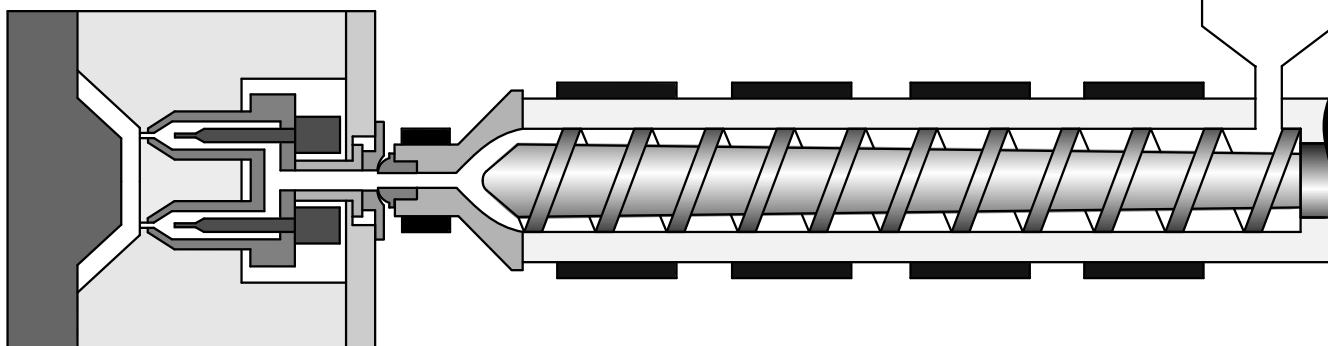
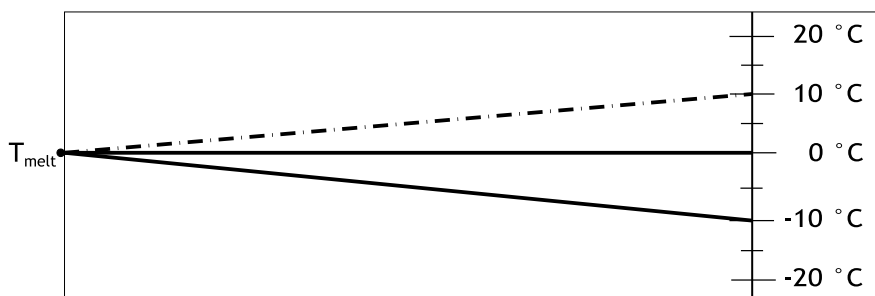
Min. mould temperature

50 °C

Max. mould temperature

90 °C

3 D (< 3 min)	---
2 D (3-5 min)	==
1 D (> 5 min)	---



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Recommended general settings

Residence time - optimum range	3 - 5 min
Residence time - maximum	10 min
Hold pressure range	50 - 100 MPa
Hold Pressure Time (h is the max. wall thickness of the part in mm)	$1.5h^2 + 2$ s
Max. screw tangential speed	≤0.3 m/s

$$\text{Residence time} = \frac{8 \cdot \text{screw } \varnothing [\text{mm}] \cdot \text{cycle time [s]}}{60 \cdot \text{dosing stroke [mm]}}$$

Hot runner residence time not included in calculation

Special precautions

During molding, use proper protective equipment and adequate ventilation. Avoid fumes and limit the residence time and temperature of the resin in the machine.

Links for further information

Trouble Shooting Guide

For further information e.g. on Shrinkage, Hot runner systems, Venting, Gating, Drying and moisture measurement, Regrind, Purging, please refer to the detailed Molding Guide.

Footnotes:

- * Improper storage may lead to longer drying times
- ** Excessive drying may lead to viscosity increase during processing. A discoloration of natural colored materials is possible.
- *** Using melt temperature lower than recommended could create unmelt, leading to weak parts