

INJECTION DATASHEET

Zytel® 73G45L NC010

NYLON RESIN

Zytel® 73G45L NC010 is a 45% glass fiber reinforced polyamide 6 resin for injection moulding.

General Information

Resin Identification ISO 1043
Density ISO 1183

PA6-GF45
1510/- kg/m³

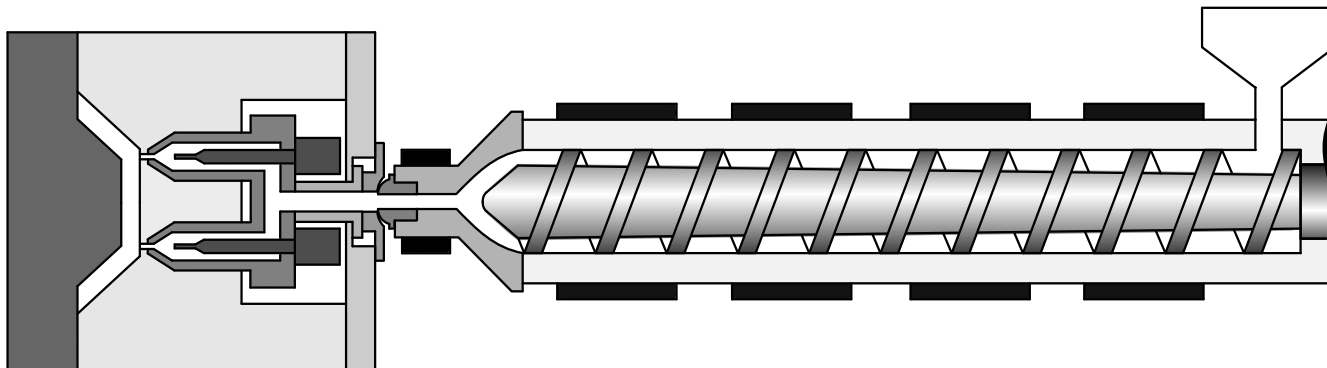
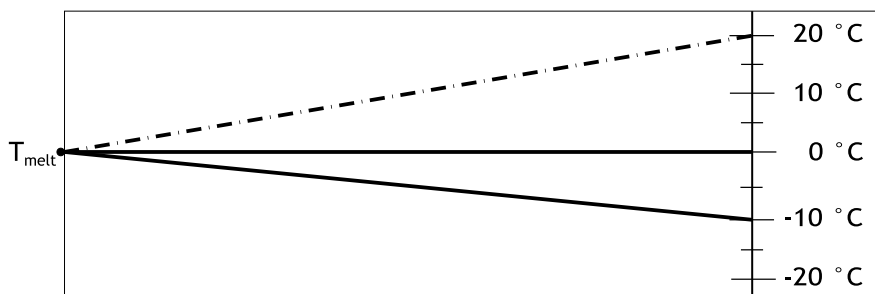
Drying

Drying Recommended	yes
Drying Temperature**	80 °C
Drying Time*	2 - 4 h
Processing Moisture Content - Optimum**	0.1 %
Processing Moisture Content	≤0.2 %

Temperature settings

Melt Temperature Optimum Internal	270 °C
Min. melt temperature***	260 °C
Max. melt temperature	280 °C
Mold Temperature Optimum	100 °C
Min. mould temperature	70 °C
Max. mould temperature	120 °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	$h^2 + 2$ s
(h is the max. wall thickness of the part in mm)	
Max. screw tangential speed	≤ 0.2 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