INJECTION DATASHEET

Zytel® 73G50HSLA BK416

NYLON RESIN

Zytel® 73G50HSLA BK416 is a 50% glass fiber reinforced, heat stabilised, lubricated, polyamide 6 resin for injection moulding. It has an excellent surface appearance and gloss.

General Information

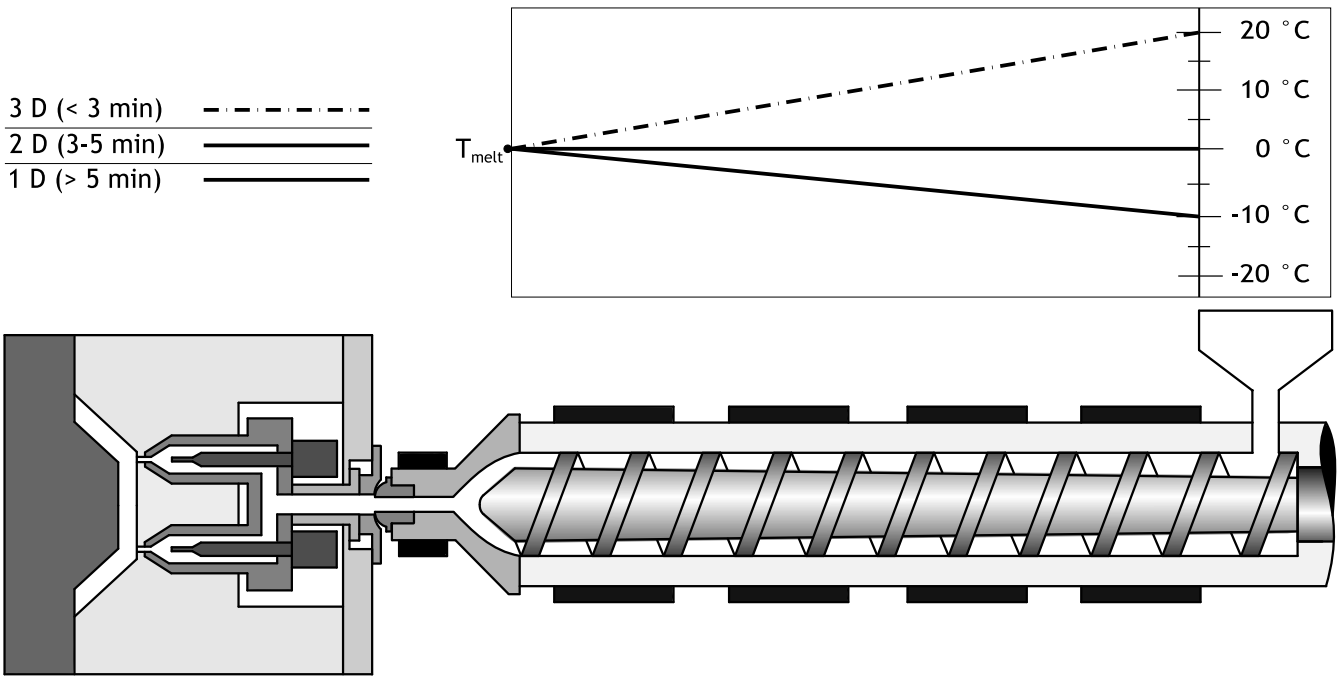
Resin Identification ISO 1043	PA6-GF50
Density ISO 1183	1580/- kg/m^3

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



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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)	h^2+2 s
Max. screw tangential speed	≤0.2 m/s

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

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