

Zytel® HTNFR52G30NH BK337

HIGH PERFORMANCE POLYAMIDE RESIN

Zytel® HTNFR52G30NH BK337 is a 30% glass reinforced, flame retardant high performance polyamide resin. It is also a PPA resin and it uses a non-halogenated flame retardant.

General Information

Resin Identification ISO 1043 PA6T/66-GF30FR(40)
 Density ISO 1183 1440/- kg/m³

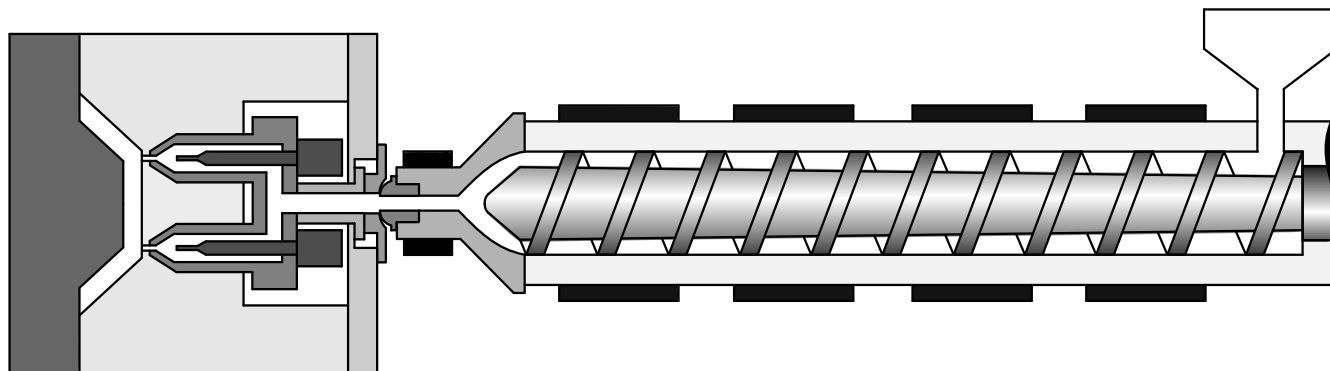
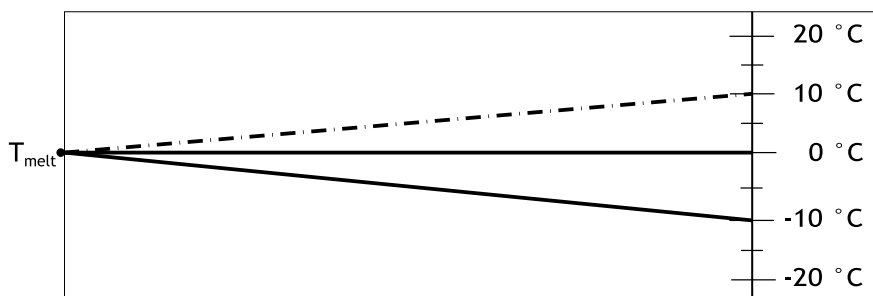
Drying

Drying Recommended yes
 Drying Temperature** 100 °C
 Drying Time* 6 - 8 h
 Type of Dryer Dehumidified dryer
 Recommended Dew Point -40 °C
 Processing Moisture Content - Optimum** 0.05 %
 Processing Moisture Content ≤0.1 %

Temperature settings

Min. melt temperature*** 320 °C
 Max. melt temperature 325 °C
 Min. mould temperature 90 °C
 Max. mould temperature 130 °C

3 D (< 2 min) - - - - -
 2 D (2-4 min) = = = = =
 1 D (4-6 min) — — — — —



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Recommended Temperature profile settings

Hopper	≥80 °C
Barrel settings	Dependent on stroke (residence time)
Nozzle	$T_{\text{melt}} - 10\text{ °C}$
Hot Runner	T_{melt}

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

Recommended general settings

Residence time - optimum range	2 - 4 min
Residence time - maximum	6 min
Hold Pressure Time	$h^2 + 2\text{ s}$
(h is the max. wall thickness of the part in mm)	
Stroke vs screw diameter (D)	1-2D

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.

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

Hot runner residence time not included in calculation

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