

Zytel® 70G50HSLR BK509

NYLON RESIN

Zytel® 70G50HSLR BK509 is a 50% Glass Reinforced, Heat Stabilized, Hydrolysis Resistant, Polyamide 66

General Information

Resin Identification ISO 1043
 Density ISO 1183

PA66-GF50
 1570/- kg/m³

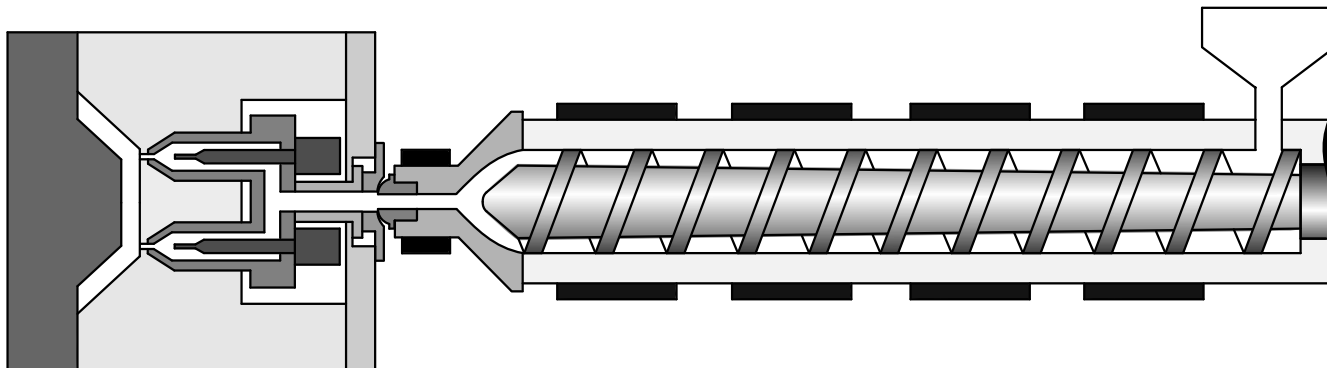
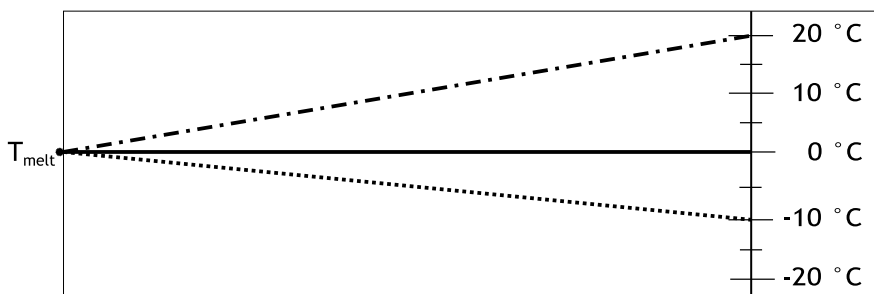
Drying

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 295 °C
 Min. melt temperature*** 285 °C
 Max. melt temperature 305 °C
 Mold Temperature Optimum 100 °C
 Min. mold temperature 70 °C
 Max. mold temperature 120 °C

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



Zytel® 70G50HSLR BK509

NYLON RESIN

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

Mobility & Materials

The information set forth herein is furnished free of charge, is based on technical data that Celanese believes to be reliable, and represents typical values that fall within the normal range of properties. This information relates only to the specific material designated and may not be valid for such material used in combination with other materials or in other processes. It is intended for use by persons having technical skill, at their own discretion and risk. This information should not be used to establish specification limits nor used alone as the basis of design. Handling precaution information is given with the understanding that those using it will satisfy themselves that their particular conditions of use present no health or safety hazards and comply with applicable law. Since conditions of product use and disposal are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information. As with any product, evaluation under end-use conditions prior to specification is essential. Nothing herein is to be taken as a license to operate or a recommendation to infringe on patents.

CAUTION: Do not use Celanese materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless the material has been provided from Celanese under a written contract or other acknowledgement that is consistent with the Celanese policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your Celanese representative.

Celanese's sole warranty is that our products will meet our standard sales specifications in effect at the time of shipment. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, CELANESE SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR NON-INFRINGEMENT. CELANESE DISCLAIMS LIABILITY FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES.