

PROCESS DATA FOR INJECTION MOULDING PA6

DESCRIPTION

Polyamide 6.

PREDRYING

PA resins are hygroscopic: they absorb moisture from the air relatively quickly. The maximum moisture level absorbed is normally 3.5% (saturated in air at 23 °C, 50% R.H.).

it is recommended that resin moisture content is less to 0.15% when processing PA 6.

The material must be pre-dried approximately 4h 80°C. Drying PA above 80°C for longer than 2 hours will cause yellowing of the granules due to oxidation. If the molding compound contains too much moisture, you will encounter processing problems, bubble formation, and poor moldings properties.

PROCESSING CONDITIONS¹

Following parameters should be used as guideline:

<i>Mold temperature</i>	60 – 100	°C	
<i>Feed temperature</i>	20 – 50	°C	
<i>Rear zone²</i>	230 - 240	°C	
<i>Middle zone²</i>	240 – 250	°C	
<i>Front zone²</i>	250 – 260	°C	
<i>Nozzle zone²</i>	260 – 270	°C	
<i>Back pressure</i>	5 – 25	bar	Preferably low
<i>Holding pressure</i>	Due to the crystalline character of nylons, the highest possible holding pressure is applied in order to decrease the mould shrinkage.		
<i>Screw speed</i>	60 - 100	rpm	
<i>Injection speed</i>	Moderate to fast		

STORAGE

Store in dry conditions at temperatures below 50°C and protected from UV-light. Improper storage can initiate degradation, which results in odour generation and colour changes and can have negative effects on the physical properties of this product.

SAFETY

The product is not classified as dangerous. For further information refer to the downstream user information sheet of non-hazardous substances and mixtures in accordance with Article 32 of the EEC Regulation 1907/2006 (Reach)³.

¹ These conditions will depend on the type of equipment used.

² The heat profile depends on many conditions: barrel size, screw design, rpm, residence time, etc.

³ <http://www.mepol.com/it/material-safety-data-sheets>