

# Processing Guidelines

## Injection Moulding



TECHNISCHE KUNSTSTOFFE

## ROMILOY ABS/PA 4010... Blends

### General

ROMILOY ABS/PA can be processed on general injection moulding machines. However the particular type of screw used is important for the resulting properties of the moulding. High shear stresses during the processing can lead to thermal and mechanical degradation.

### Storage

ROMILOY ABS/PA should be stored dry in closed rooms. ABS/PA have to be protect against direct sun shine. If the material is stored outside the packs can be easy damaged and the granulate becomes faster yellow. Thus the mechanical and optical properties can be affected.

### Drying

ROMILOY ABS/PA leaves the plant with moisture content < 0.1 % (Karl-Fischer-Titration).

ROMILOY ABS/PA absorb moisture if stored in inconvenient places. We therefore recommend to dry the material in a dehumidified air dryer at 80°C for about 2-4 hours (circulation air drying oven, vacuum dryer, fixed hopper). If the material will not be dried properly, streaks on the surface can occur. The moisture content should not exceed 0,1% in order to achieve good surface and properties.

Furthermore, we recommend to dry the material up to moisture content < 0.05 %. The pellet hopper used should be heatable.

The drying time should be limited to 2h if the material is coloured in light colour.

### Processing

Depending on the size of the injection moulding machine and the component, the processing conditions should be controlled regular and very careful. Following conditions apply for assistance whilst processing:

ROMILOY® ABS/PA-Blend	unreinforced grades 4010..	reinforced grades 4010.. GF, 4010.. GK
Drying temperature	</= 80 °C	</= 80°C
Drying time	2 - 4 h	2 - 4 h
Barrel temperature	230 - 250 °C	230 - 260 °C
Melt temperature	240 - 260 °C	250 - 270 °C
Mould temperature	50 - 90 °C	50 - 90 °C
Injection speed	high (high surface gloss) slow (low surface gloss)	high (high surface gloss) slow (low surface gloss)
Peripheral screw speed	0,2 m/s max 0,3 m/s	0,2 m/s max 0,3 m/s
Back pressure	<10bar hydraulic pressure	<10bar hydraulic pressure
Holding pressure	moderate to high	moderate to high

## **Recycling**

Defective parts and sprues from ROMILOY ABS/PA without any contaminations can be reprocessed as a regrind. The amount of the regrind used should be chosen in dependence on the colour and degree of reinforcing. We recommend to start with 5% regrind and to control changes of the mechanical and optical properties. However, if there are specific properties requested, only prime material should be used.

The above processing guidelines should advise without commitment. The statements given are based on our experience and are correct to the best of the knowledge at the time of printing. No liability should be assumed as a result of this information.

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