

General

ROMILOY[®] PC/PET is a blend comprises one amorphous (PC) and one semi crystalline (PET) polymer and can be formed by all processes suitable for thermoplastic molding compounds. In particular they can be easily moulded on usual injection moulding machines. Also all common types of sprue can be used (VDI 2006). Ideally, the connection is made by means of a rod gate or a small film gate, where sharp edges and dead zones are to be avoided. When designing the mold, we recommend a balanced ratio of the interface to the part size and good mold ventilation. In the case of grained structures, it is advisable to avoid sharp points / rear edges.

Storage

ROMILOY[®] PC/PET-blends should be stored dry in closed rooms and protected from direct sunlight. If the packaging is stored on the outside, this can damage the physical and optical properties of ROMILOY[®] PC/PET-blends.

Drying

ROMILOY[®] PC/PET-blends leaves the production facility with a residual moisture value of < 0.1 %. This value is checked with the aid of the moisture measuring device (Aquatrac). Before further processing, the material should be dried to a moisture content of < 0.02 %.

ROMILOY[®] PC/PET-blends can absorb moisture under unfavorable transport and storage conditions, which can lead to surface defects such as streaks or stripes and hydrolytic degradation. We therefore strongly recommend pre-dry ROMILOY[®] PC/PET-blends for 3 – 4 hours at a temperature of 100 °C (\pm 10 °C) in a dry air dryer before processing. These dry the materials with high reliability even at high outside humidity.

In the case of light colors, we recommend limiting the pre-drying time to approx. 2 hours in order to rule out the possibility of color changes.

PROCESSING GUIDELINES INJECTION MOLDING

ROMILOY® PC/PET-Blends

ROMIRA

Processing

The processing parameters should be selected with regard to the injection molding machine and the tool geometry. The parameters listed below serve to support the specified injection molding properties. Of particular attention should be paid to the melt temperature using hot runner tools.

ROMILOY® PC/PET-Blends	Standard	Filled / Reinforced
Drying temperature	100 ± 10 °C	100 ± 10 °C
Drying time	3 – 4 h	3 – 4 h
Barrel temperature	260 – 280 °C	260 – 290 °C
Mass temperature	< 290 °C	< 300 °C
Tool temperature	60 – 90 °C	70 – 100 °C
Peripheral screw speed	0.15 m/sec to max. 0.2m/sec	max. 0.2 m/sec
Injection pressure	low	low
Holding pressure	not higher than injection pressure	not higher than injection pressure

The above mentioned processing parameters are only approximants and depend on the tool geometry and the machine used. It should be considered that flame retardant materials are sensitive to shearing and temperature.

Recycling

Previous tests before recycling of rejected parts, gates etc. from ROMILOY® PC/PET-blends are recommended. It should be considered that the regrind is free of dust. Due to reprocessing conditions the small dust particles from grinding process can burn, thus can influence the mechanical and optical values and lead to "black specs".

For special requirements in the finished parts, only original material should be used.

Flame-retardant material can be used again only to a limited proportion of regrind. Therefore, previous trials are needed.