

Advice on processing filled EXXTRAL®

Injection moulding

Normally, particular pre-treatment is not necessary, but if there is condensation on the surface of the pellets, e.g. when cold pellets are transported after being taken from a container to the machine, simple pre-heating or rapid drying is sufficient. However, if the parts need to have good surface properties, and/or in case of moisture absorption of EXXTRAL® during storage or contact with water, the material must be dried at 85°C for 3 hours or 105°C for 1 hour.

The temperature taken at the end of the nozzle of mineral filled EXXTRAL® must be between 200 and 280°C (preferably between 240 and 260°C). The temperature range for processing reinforced glass fibre is between 200 and 260°C. The material may breakdown if the above temperatures are exceeded. Tests have shown that in the 240 to 260°C range no excessive increase in the fluidity index is observed even if the processing time exceeds 30 minutes. However, after 5 or 10 minutes at 280°C there is a considerable increase in the fluidity index depending on the type of the product processed.

Processing conditions

Melt temperature	200°C to 280°C for mineral filled types of the product or glass beads 200°C to 260°C for reinforced glass fibre types of the product
Injection pressure (1)	750 to 1200 bar
Holding pressure (2)	from 50 to 75% of injection pressure
Injection speed	normally slow, depending on the part moulded
Back pressure (1)	according to requirements
Mould temperature	20 to 90°C (preferably 30 to 50°C)
Mould closing force	< 5000N per cm ² area ejected from the part mould

(1) At the end of the screw (on the material)

Remarks

Ensure that the mould is well vented. There is no problem with mould processing with degassing.
Avoid direct contact with copper.

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