

Optimal Optics

Combination of variothermal process control and contour-following mould temperature control to improve the optical properties

Advantages of variothermal process control:

The warmer the cavity during the injection process,

- the better the holding pressure in thick-walled components
- the lower the risk of warping due to shrinkage
- the better the mechanical and optical properties
- the better the moulding of the optical surface
- the fewer the sink marks away from the sprue
- the fewer the visible weld lines



Contour-following tempering of the ejector half. Controllable in two different cycles.



More cost-effective:

- Reduction of the rejection rate
- Reduction of the cycle time by up to 20 %



The variothermal, conformal tempering channels are located on the cavity half, divided into two zones.



ATT – Alternating Temperature Technology

Active heating by water pressure up to 200 °C alternated by active cooling through the same mould channels.

Typical applications of the ATT system:

- Injection or compression moulds or mould inserts with cooling channels close to the cavity
- Typical mould temperature ranges above 100 °C; up to max. 200 °C

Heating and cooling follows the injection cycle

- Up to 100 K temperature difference between heating and cooling mode on the cavity
- Able to significantly improve the quality of the moulded parts and/or the cycle time
- Easy to integrate into a standard tool

Joint project of the following companies:



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