

The Next Generation of Micro Injection Moulding using Ultrasonics

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Abstract

Ultrasion has developed a commercially available micro injection moulding technology that uses ultrasonics as the melting agent. The technology is characterised as having no screws, barrels or heater bands. The precise amount of polymer is dosed direct to the mould where it is melted in situ. This means no residence time, no material degradation, no purging, and consequent massive energy and material savings. Ultrasonics also induces much reduced viscosity in melted plastics, which means the production of longer, flatter, thinner parts than previously possible using traditional moulding technologies, and the process uses hugely reduced moulding pressures which opens up hitherto impossible applications using intricate core pins and difficult core pin alignments, and facilitating a plethora of overmoulding and insert moulding projects.

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