OP-7-956

Saturday, May 14, 2011, 10:50-11:10 am

Room: Karam 1

FEA SIMULATION STUDY ON MOULD FEEDING SYSTEM DESIGN OPTIMIZATION FOR PRECISION MICRO MOULDING OF POLYMERIC MICROFLUIDIC CHIP

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Mold feeding system plays a critical role in the precision molding of micro and nano structures for polymeric microfluidic chips. There are many factors in mould filling system which can affect the behavior of melt filling such as gate locations, type of the gate and runner configuration etc. Optimization of mould filling system design is very important in precision molding. However, as there are many design parameters, optimization of mold feeding system is a challenge task in mold design. In this paper, the different types of mold filling systems are virtually evaluated and optimized through FEA simulation study.