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## High Shear Rheology of Materials for Micromoulding

*P.D. Coates (a), J. Immonen (b), B.R. Whiteside (a), M.T. Martyn (a)*  
*(a) IRC in Polymer Science and Technology, University of Bradford, UK*  
*(b) Joensuu Science Park Ltd./Imtec Karjalankatu 3, Joensuu, Finland*

Micromoulding is a growing area of polymer processing which offers a route for 3-dimensional micro-scale component fabrication including the benefits of conventional injection moulding such as high output and low marginal production costs. Micromoulding process characterisation and computer modelling are two areas which are being actively researched worldwide but these two disciplines require an accurate understanding of the rheological responses of polymer material at shear strain rates of orders of magnitude higher than those found in conventional polymer processes.

This paper presents work performed to assess the rheology of a range of optically clear and related materials at shear rates in excess of  $10^6$ s<sup>-1</sup>. The work has been performed using a Cincinnatti/Fanuc servo-electric injection moulding machine with a custom rheometric nozzle.