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## **Improved Melt Flow Rate Measurements: High Rate MVR Measurements, Comparison with Capillary Extrusion Rheometry and Developments in ISO**

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The melt flow rate method is widely used in quality control within the polymer industry and is likely to remain as a dominant tool for quality control and assurance. However, it is widely accepted within the industry that the melt flow rate method has limitations. Various improvements to the melt flow rate method have been investigated. These increase the range of the method both in terms of its operating range, enabling significantly higher melt flow rate/low viscosity materials to be tested, and the range of properties measured. Results are presented for various polymeric materials demonstrating the high rate capability of the modified instrument. Data for shear viscosity and entrance pressure drop measured using the improved melt flow rate instrument are compared with data obtained from capillary extrusion rheometry.

Furthermore, a proposal for development of the melt volume flow rate method for testing moisture sensitive materials, e.g. PET, PBT, that is being considered in the ISO Rheology Standards Committee will be outlined.