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Rheological Properties of PP/EVA Blends

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Abstract : The study aims to investigate the effects of blend ratio, VA content and temperature on the rheological properties of PPEVA blends. The results show that all pure polymers and their blends show typical shear thinning behaviour. All neat polymers exhibit power-low type flow behaviour, with the viscosity order as EVA328 > EVA206 > PP in almost all frequency ranges. As temperature increases, the viscosity of all polymers decreases as expected, and the viscosity becomes more sensitive to the addition of EVA. Two different regions can be observed on the flow curve of some of the polymers and their blends, which is thought to be due to slip-stick transition or melt fracture.

Keywords : polypropylene, ethylene vinyl acetate, blends, rheological properties
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