INFLUENCE OF DISPERSED PHASE ON THE RHEOLOGICAL PROPERTIES OF POLYAMIDE 6/ACRYLONITRILE-BUTADIENE-STYRENE NANOCOMPOSITES

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This article examines the effects of dispersed phase concentration on rheological behavior of PA6/ABS blends. The results showed that the size of dispersed phase increase with increasing ABS loading as a dispersed phase. As enhancement of the droplets size, recognized in the increased viscosity and elasticity at low frequencies. The results indicate that the increasing of elasticity and existence of plateau at low frequencies occurs by increasing ABS weight fraction. Consequently, in all blends with increasing of the dispersed phase content, storage modulus and complex viscosity increase and also cross-over points close together which cause to expansion of plateau elasticity.