

EFFECTS OF NANOCCLAY ON RHEOLOGICAL PROPERTIES OF POLYAMIDE 6/ACRYLONITRILE-BUTADIENE-STYRENE NANOCOMPOSITES

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The influence of nanoclay on the rheological properties of polyamide6/acrylonitrile butadiene styrene (PA6/ABS) blends with different compositions was investigated by using rheometry. The results showed that the, decrement in dispersed domain size, recognized in the increased viscosity and elasticity at low frequencies. Also, the results indicate that the enhancement of elasticity and existence of plateau at low frequencies occurs by increasing nanoclay content. Consequently, in all blends by raising the nanoclay loading, storage modulus G' and complex viscosity η^* increase and also crossover points close together which cause to expansion of plateau elasticity.