

STUDY ON RELAXATION BEHAVIOR IN IMMISCIBLE PA6/ABS NANOCOMPOSITES

A. Mojarrad, Y. Jahani, M. Barikani

Iran Polymer and Petrochemical Institute, Tehran, Iran

A.Mojarrad@ippi.ac.ir

The objective of this work is to study the influence of nanoclay on relaxation behavior of polyamide 6/acrylonitrile butadiene styrene (PA6/ABS) blends. It was observed that the relaxation time (λ) increases by increasing of the nanoclay content. Consequently, the increase in relaxation time of PA6/ABS/Nanoclay blends by rising of the nanoclay explained with deformation of droplets and also by the physical interactions across the interface that causes to enhancement of elasticity behavior at low frequencies. In other words, this occurrence causes the relaxation time slightly shifted toward higher values by increasing of nanoclay loading.