Rheological behavior of Polypropylene/clay nanocomposites under uniaxial extensional flow

김정림, 김도훈, 안경현*, 이승종
서울대학교 응용화학부
(ahnnet@snu.ac.kr*)

Dynamic rheological measurements have been performed to evaluate the degree of exfoliation of polymer/clay nanocomposites by many researchers. It is generally recognized that both storage and loss moduli under oscillatory shear flow increase with silicate loading at all frequencies and show non-terminal behavior at low frequencies. Recently, extensional behavior of polymer nanocomposites, which is closely related to the melt strength of polymer, has been recognized as one of the important parameters in polymer processing. In this study, the rheological behavior of Polypropylene(PP)/clay nanocomposites was investigated under the uniaxial extensional flow as well as in the shear flow.