

عنوان مقاله:

Prediction of the Morphology of the PE/ PP/PS Ternary Blends Using Rheological Analysis

محل انتشار:

دوازدهمین کنگره ملی مهندسی شیمی ایران (سال: 1387)

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خلاصه مقاله:

Rheology and morphology of PE/ PP/ PS ternary blends were studied. The melt compounding of all the ternary blends were performed in an internal mixer. The melt linear viscoelastic behaviors of all the samples were investigated using Rheometric Mechanical Spectrometer (RMS). The phase morphology of the different blends was examined using SEM technique. Using rheological analysis the core-shell type of morphology were predicted for the ternary blends in which PE phase was the major phase, whereas for the blends with PP phase as a major phase, the separately dispersed type of morphology were resulted. Direct morphological observation using SEM analysis confirmed the reliability of the predicted morphology using rheological studies. From these results it was demonstrated that the melt .linear viscoelastic behavior has a reliable sensitivity for evaluation of the phase morphology of the ternary blends

کلمات کلیدی:

Rheology, Morphology, Ternary Blends

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