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عنوان مقاله:

Ternary Polymer Blends with Core-Shell Morphology based on Polypropylene: Part II - Role of Viscosity Ratio on Thermal, Thermomechanical and Mechanical Behaviors

محل انتشار:

اولین همایش بین المللی نفت،گاز،پتروشیمی و HSE (سال: 1396)

تعداد صفحات اصل مقاله: 7

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خلاصه مقاله:

In this work, transitions in phase morphology of typical polypropylene / polycarbonate / poly[styrene-b-(ethylene-cobutylene)- b-styrene], PP/PC/(SEBS+SEBS-g-MA), blends with coreshell type morphology was investigated revisiting the critical role of viscosity ratio. The interdependence between morphological, thermal, thermo-mechanical, and mechanical properties was discussed based on experimental analyses as well as illustrative mechanistic description of morphology development and mode of fracture of blends containing high- (VH) and low-molecular-weight PC (VL) components. Dynamic mechanical analysis of samples with common (PC/SEBS) and inverse (SEBS/PC) core-shell particles showed different classes of blends; so that blends containing PC/SEBS had a higher storage and loss modulus, while blends containing SEBS/PC showed a lower β- transition temperature.

کلمات کلیدی:

Core/shell Morphology; Viscosity ratio; Thermomechanical Behavior; Ternary Blends

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