

## عنوان مقاله:

Reactive Compatibilization of Polyamide-6/Polycarbonate Blends by using Maleated SEBS

## محل انتشار:

کنفرانس بین المللی فرآورش پلیمرها (سال: 1390)

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## خلاصه مقاله:

The work deals with compatibilization of polyamide-6 (PA-6)/polycarbonate (PC) systems by using maleated poly [styrene-b-(ethylene-co-butylene)-b-styrene] triblock copolymer (SEBSg- MA). In particular, the interest was to study the role of such compatibilizer toward morphology and mechanical properties of the incompatible polymer blends of PA-6/PC. Here, incorporation of reactive SEBS-g-MA and unfunctionalized SEBS, namely reactive compatibilizing system, has been found to provide significant improvement toward mechanical properties of the PA-6/PC blends. In addition, scanning electron microscopy (SEM) studies showed that the encapsulation of SEBS around the PC domains becomes gradually incomplete while using SEBS-g-MA and unfunctionalized SEBS, simultaneously, throughout the PA-6 rich phase. Also, the SEBS dispersed domains within the PA-6 matrix progressed with increasing the ratio of unfunctionalized SEBS to SEBS-g-MA. However the encapsulation was incomplete, maximum impact strength and maximum strain at break in tensile test were achieved when certain weight ratio of SEBS-g-MA to SEBS were employed.

## کلمات کلیدی:

Reactive compatibilization; polyamide-6/Polycarbonate Blends; Maleated SEBS

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