

عنوان مقاله:

Effect of TMPTMA on the branching efficiency and long chain branching of PP/PB-1 blends

محل انتشار:

یازدهمین سمینار بین المللی علوم و تکنولوژی پلیمر (سال: 1393)

تعداد صفحات اصل مقاله: 2

نویسندگان:

Milad Karbalaee Bagher - *Plastics Dept., Faculty of Processing, IPPI P.O. Box 14965/115, Tehran, Iran*

yousef jahani - *Plastics Dept., Faculty of Processing, IPPI P.O. Box 14965/115, Tehran, Iran*

Ali foroozan - *Plastics Dept., Faculty of Processing, IPPI P.O. Box 14965/115, Tehran, Iran*

خلاصه مقاله:

Long chain branching of PP/PB-1 blends was achieved by reactive extrusion in the presence of trimethylolpropane trimethacrylate (TMPTMA) trifunctional monomer and peroxide of dicumyl peroxide (DCP). Influence of TMPTMA concentrations on the grafting degree at 0.6, 1, 1.5 and 2 wt% was evaluated. The branching reactions were confirmed by Fourier transformed infrared spectroscopy (FTIR) and nonlinear extensional rheology in which the formation of long chain branching structure can be thoroughly investigated by the well-known strain hardening behavior. Results indicated that TMPTMA was grafted onto PP/PB-1 backbone and grafting efficiency of 1.5%-TMP sample is the highest among others

کلمات کلیدی:

Polypropylene, Branching process, Reactive extrusion, Extensional rheology

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