

عنوان مقاله:

Preparation of Thymolphthalein Stearate and Evaluation of Its Effects on Thermo-Oxidative Stability of Polypropylene

محل انتشار:

دوازدهمین سمینار بین المللی علوم و تکنولوژی پلیمر (سال: 1395)

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خلاصه مقاله:

Thymolphthalein stearate was prepared through an esterification reaction between thymolphthalein and stearic acid. The occurrence of the esterification reaction was examined by determination of melting point of the product, high performance liquid chromatography (HPLC), and also FT-IR spectroscopy. The synthesized ester were then incorporated into polypropylene via melt mixing. Determination of oxidative induction time (OIT) of the samples with the aid of differential scanning calorimetry (DSC), proved that thymolphthalein stearate enhances the stability of the polymer remarkably in the melt state. However, the stabilization efficiency of thymolphthalein stearate is not as outstanding as that of Songnox 1010, a commercially used antioxidant for polypropylene

کلمات کلیدی:

Antioxidant- Degradation- Polypropylene- Stabilization- Thymolphthalein

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