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EVALUATION OF THE USE OF DIFFERENT TYPES OF MONTMORILLONITE TO GRAFTING OF MALEIC ANHYDRIDE ONTO POLYPROPYLENE

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One of the most used compatibilizers agents for blends or composites using polypropylene is the polypropylene grafted with maleic anhydride. This copolymer is generally produced by reactive extrusion and presents low molar mass and low grafting level. In order to increase the grafting level and reduce the chain scissions, some modification in the process are proposed in literature, as the use of comonomers that improve the reactivity of maleic anhydride and fractioned feeding of reagents. Other new technique proposed is the use of peroxide/montmorillonite system. Is supposed this system can increase the selectivity of the grafting reactions. This paper shows a study of six systems, which the kind of montmorillonite clay and peroxide were varied. The results not showed changes in the grafting level using of 2,5-bis(tert-butylperoxy)-2,5-dimethylhexane (DHPB)/montmorillonite sytem. Besides the use o dicumyl peroxide (DCP)/montmorillonite system shows a decrease in the grafting level. This phenomenon was associated to decomposition of the peroxide during storage because in early experiments was noticed about 100% of increment in the grafting level, using the DPC/montmorillonite system.