

Study and development of polymer blends; PP / PP-G-MAH / PLA / Pro-oxidants:

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Abstract. Mixing polymers to obtain a new material with interesting properties according to the desired applications is a very powerful approach especially from an economic point of view. In this work, PP polypropylene was mixed with PLA polylactic acid to study the properties and biodegradability of the mixture. Since this mixture is immiscible, a PP-g-MAH compatibilizer has been added in order to reinforce the interface between the polymers. The results obtained confirm the effectiveness of compatibilization of the blends by PP-g-MAH where an improvement of the mechanical and rheological properties has been observed. The addition of prooxidants, which are complexes of transition metals; they are commonly used as an attempt to facilitate the degradation of polymer blends mixed with these stearates by microorganisms.

Keywords: polymer blends, biodegradable, PP/PLA, stearates.