

## Study on the Reactive Blending of Polylactic acid and Polycarbonate with Compatibilizers

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Poly(lactic acid) (PLA) has attracted increasing attention in recent years because it is produced from renewable resources and is biodegradable. Unfortunately, its toughness and heat distortion temperature are not satisfactory for the wide application. Blending PLA with other polymers presents a versatile and economic method to obtain toughened products. In this study, we used polycarbonate (PC) has high toughness and good heat resistance to overcome drawbacks of PLA. The influences of compatibilizers concentration on the mechanical, morphological and rheological properties of reactively compatibilized PLA/PC blends with two different composition ratios of PLA and PC (70/30 and 30/70) were investigated. Blends of PLA and PC with compatibilizers were prepared using twin-screw extruder and mechanical, morphological and rheological properties of blends were investigated by Izod impact tester, UTM, SEM and ARES. **Acknowledgements.** This work is the outcome of a Manpower Development Program for Energy & Resources supported by the Ministry of Knowledge and Economy (MKE).