

Effects of PP-g-MAH and EGMA as a Compatibilizing agents on the Mechanical and Morphological Properties of Polypropylene/Polylactic acid Blends

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We studied the effects of maleic anhydride grafted polypropylene (PP-g-MAH) and ethylene-glycidyl methacrylate (EGMA) addition on polypropylene(PP) and polylactic acid (PLA). Blends of the PP/PLA with PP-g-MAH and EGMA as compatibilizing agents were prepared by a twin screw extruder. From the results of impact and tensile strength of the PP/PLA (80/20 wt%) with PP-g-MAH and EGMA, it was observed that 80/20 wt% composition of PP/PLA blend has a maximum strength at a PP-g-MAH content 4phr. The toughening effects of the blends may be due to compatibilizing effects of the PP-g-MAH in the incompatible polymer blends of PP and PLA.