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EFFECT OF AN IMPACT MODIFIER AND AN ORGANOCCLAY ON THE PROCESSABILITY AND TOUGHENING OF PLA

G. F. Brito^{a,*}, P. Agrawal^a, B. B. Cunha^a, E. M. Araújo^a, T. J. A. Mélo^a

^a UFCG - Federal University of Campina Grande; Av. Aprigio Veloso, 882 – Bodocongó; - Campina Grande, Paraíba, 58429-900, Brazil

*Corresponding author: gustavo_brito@hotmail.com

Due to increasing demand for eco-friendly materials, biodegradable polymers from renewable resources have been presented as promising alternatives to petrobased polymers. Among the biopolymers the poly (lactic acid) - PLA has attracted great attention because of its good properties. However, it presents some drawbacks, like brittleness, that should be overcome to make possible its wide application. This work evaluated the influence of an impact modifier and an organoclay on the mechanical and rheological properties of a system composed of PLA, impact modifier, and organoclay. The results of rheological tests showed that the processability was changed and the mechanical tests showed an increase in toughness of the systems. Keywords: biopolymers, poly (lactic acid), blends, nanocomposites.