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EVALUATION OF MECHANICAL PROPERTIES PLA/PBAT/BRAZILIAN CLAY OBTAINED BY DIFFERENT SEQUENCE OF MIXTURE

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In this work of bionanocomposites had been developed using a blend contend PLA/PBAT and Brazilian clay in the concentration of 3% by the melt intercalation technique. Four different sequences of mixture had been used for dipersion nanoclay in the polimeric matrix: i) blend was prepared contend 50%PLA/50%PBAT after and the preparation of the added blend the clay; ii) PBAT/Clay concentrate was prepared and later dispersed in the PLA matrix; iii) PLA/Clay concentrate was prepared and later dispersed in the PBAT matrix; iv) all the components PLA/PBAT/Clay was added together. All the mixtures were prepared using twin-screw extruder with a screw diameter of 30 mm and an L/D ratio of 30 twin screw. After extrusion were prepared samples using injection molding and evaluated mechanical properties. The preliminary results showed that mechanical properties depends the condition mixture used.