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**DYNAMIC MECHANICAL ANALYSIS OF EVA/PVC/CLAY NANOCOMPOSITES OBTAINED USING A TWIN-SCREW EXTRUDER**

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The nanocomposites EVA/PVC/clay were obtained from a co-rotating twin-screw extruder MH-COR-20-32-1200 (D = 20 mm, L/D = 32) at a speed processing of 200rpm. Three different types of clays were used: Na<sup>+</sup>, 15A and 30B. The dynamic mechanical properties were analyzed using a DMA Analyzer 2980. The storage modulus show higher values for the samples containing the organophilic clays, mainly in the glassy region. These results were better visualized calculating the storage modulus retention. The loss modulus show lower energy dissipation for the nanocomposite containing 15A clay and this can be indicative of a strong interface between matrix/reinforcement and/or a better dispersion promoting more interface regions, when compared to the others clays. The glass transition (T<sub>g</sub>) show a shift to higher temperatures with incorporation of 15A and 30B nanoclays indicating more thermal energy to begin the cooperative motion. Also, by integrating the tan delta curve was obtained the peak width at half-height and the peak width of the samples. The results show lower values for the sample 15A for both analyses and, this can be indicative of a more homogeneous system in comparison to the others samples corroborating with the lower dissipation energy.