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Título: Obtaining and characterization of hybrids polymer nanocomposites high impact polystyrene and carbon nanotube (HIPS)/CNT

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Abstract: High impact polystyrene (HIPS) is a thermoplastic blend of 4 to 12% polybutadiene in styrene. In this work, hybrid polymeric nanocomposites were produced by plastic injection molding using high impact polystyrene (HIPS) and carbon nanotubes (CNT). The objective of this work was to verify the influence of different amounts of CNT on the thermal properties and mechanical properties of polymeric nanocomposites. For this, the temogravimetry tests (TGA), traction test, impact test and wear test were performed. The results showed that the degradation temperature increased as well as the values of tensile and impact strength, however it was observed a reduction in the coefficient of friction.