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## A MODERN APPROACH IN WOOD WASTE MANAGEMENT: COMPOSITES BASED ON A NOVEL COPOLYAMIDE AS MATRIX

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### Abstract

In this study, the obtaining of some composite materials using wood chips as filler and a modified polyamidic polymer as thermoplastic matrix is presented. Characterization was carried out on composite samples by analysis of morphology, mechanical properties and thermal behaviour. It was observed that the tensile strength of composites decreased significantly with the increasing wood chips content. Still, even the bending strength is decreasing; it remains 2-8 times higher than that for the composites based on polyolefinic matrices. The thermal stability of the obtained composite materials is higher to that of the initial wood component.

**Keywords:** wood polymer composites (WPC), thermoplastic matrix, compression moulding, mechanical properties, waste control.

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