The Effect of Triethylene Diamine on the Properties of Waste Paper Foam Composites

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Abstract: The effect of triethylene diamine (TEDA) as a catalyst and waste paper filler content on the properties of waste paper foam composites was investigated. The results indicate that an increase of waste paper filler content leads to an increased compressive strength, elastic modulus and hardness. At constant waste paper content, foam composites produced using the TEDA catalyst result in higher values of hardness, compressive strength and elastic modulus compared to the waste paper foams produced without the aid of the catalyst.

Keywords: waste paper, polyurethane foam, catalyst, composites