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REUSE OF PET WASTE AS THERMOPLASTIC COMPOSITES

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Abstract

Composite manufacturing from plastic wastes of polyethylene terephthalate (PET) type, sand-blasting represents a material recovery of the wastes. This process can be achieved, with the purpose of reducing the material consumption which is in deficit, production costs, and the duration of the technological processes.

Thermoplastics composites obtained by a melting process at 170-200 °C, wastes incorporation and solidification in forms replace successfully the thermo rigid composites obtained from resins after a complicated technological process. So, it could be recovered, with minimal efforts, under reduced toxicological environmental conditions and extremely reduced energy consumptions, a significant variety of wastes, with related economical and ecological advantages. The paper presents the obtaining of thermoplastic material from PET wastes, sand, structurally evaluated and measured after the physical and mechanical properties.

Key words: blasting sand, polymer composites, solid wastes, waste recycling

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