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Additional Step in PET Recycling to Enhance Properties

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Resumo

Poly (ethylene terephthalate) –PET– recycling usually involves grinding, washing, drying and reprocessing. This study presents the results of an extra step in PET recycling: a chemical washing after the conventional one, aiming the production of more valuable recycled polymers. Oil PET bottles flakes were washed only with water and then submitted to reaction with aqueous solution of sodium hydroxide 5M at 90°C for 10 minutes (chemical washing). After rinsing and drying, the flakes were characterized by thermogravimetric and elemental analysis tests. The results indicated a higher purity of the chemical washed material in comparison with PET washed only with water: 99,3% and 96,7%, respectively.

Palavras-chave: recycling, PET, washing.
