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Bottle-to Bottle PET recycling

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Abstract

Population growth and the continued incentive to consumption of disposable industrial products has led nowadays to a non-stop growing of the amount and the diversity of urban waste. The option to just dispose of industrial, commercial and home waste in landfill sites has led to their near saturation. Employment of these residues as raw materials has been adopted as a solution to this problem, but is young as an activity and thus, still not recognized as the best alternative. In the present dissertation a critical analysis of the problems posed by the bottle-to-bottle recycling of PET, for use in the food industry, in the general context of PET recycling is presented. The loss and recovery of the desired material properties, chemical and biological contaminations are discussed herein, as well as the fundamental question what the law about it is nowadays, and why, and how it might be better formulated. At this point in time, the Brazilian market recycles ca. 50% of the total produced PET, and this means that there is still potential for a lot to be done in what regards to PET recycling.

Keywords: Recycling; environmental impact; PET; bottle to bottle.
