



The behaviour of the oxo-biodegradable LDPE materials during the service life

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Abstract. This is an experimental study on behaviour of oxo-biodegradable plastics containing additives during service life. Low density polyethylene is a most extensive used synthetic polymer with the largest production, because an important part of the production is converted into various products with short life cycle. The goal of this paper was to quantify the biodegradation of two low density polyethylene films containing 10% and 20% pro-oxidant AddiFlex in soil columns. Previously, the physical-mechanical properties and heavy metal content in polymer films have been determined. The obtained degree of mineralization was around 60% after 200 days of incubation for both studied polymer films (59.8% for 10% additive and 64.3% for 20% additive).

Keywords: oxo-biodegradable, LDPE, pro-oxidant
