

Oxo biodegradable Masterbatch

The activity of Oxo-biodegradable plastic is consistent with the behavior of nature's waste products such as twigs, leaves and straw, which take years to biodegrade fully. Oxo-degradable plastics will degrade much more quickly.

Masterbatch contain photo- and/or thermo pro-degradants. A small amount of pro-degradant additive is put into the manufacturing process of the plastic item. This breaks the molecular chains in the polymer, and at the end of its useful life the product falls apart. The plastic will fragment as a result of the reduction of molecular weight until micro-organisms can 'consume' further the remaining molecules. It is therefore "biodegradable" [although not within the norms described by the European standard on Biodegradation 'EN 13432'].

Factors that influence the speed of degradation:

Antioxidant package: per definition, the higher the Antioxidant package in the final film, the more the action of the Biodegradable is suppressed. The Humidity plays an important role, the UV irradiation of course. Extremely important is the temperature. The influence of temperature on the speed of described by an Arrhenius equation, thus there is an exponential relation between degradation speed and temperature. The same rule is for the thickness of the film: also here counts an exponential relationship.

All these parameters together ask for a strict control of the process.

Key Characteristics

Low dosage levels

Environmental Friendly

Reduce Litter

Fast Acting

			Base Polymer
Product Code	Active Content	Dosage	base Polymer
	D. Calania	2-4 %	PE
Additive D10-1085	Proprietary	2-4 /0	
Master batch			

Application

Shopping Bags Hospital Disposable Garbage Bag Disposable Plastic cutlery items Mulch Tunnel Films