



# Oxo-Biodegradable Additive Masterbatches

Wells Plastics providing solutions...adding value



# Introduction

Reverte® is a family of oxo-biodegradable additive masterbatches which has been developed for a wide range of polymers and packaging applications. These products are under constant evolution by a company which really knows plastics and plastic processes. It is this critical knowledge, linked with extensive onsite laboratory facilities and state of the art production equipment, that means Wells are partners who can contribute.

Reverte® is technically superior to other oxo-biodegradables in the marketplace and this has been demonstrated time and time again. Reverte® formulations offer a greater degree of control and predictability than conventional oxo-biodegradables, a fact which we believe sets Reverte® products apart.

Wells Plastics Limited is the developer, owner and manufacturer of Reverte® oxo-biodegradable technology.

Based in the heart of the UK, Wells Plastics has been developing innovative solutions for improving the technical properties of plastics for over 25 years and holds an enviable position as a technology leader.

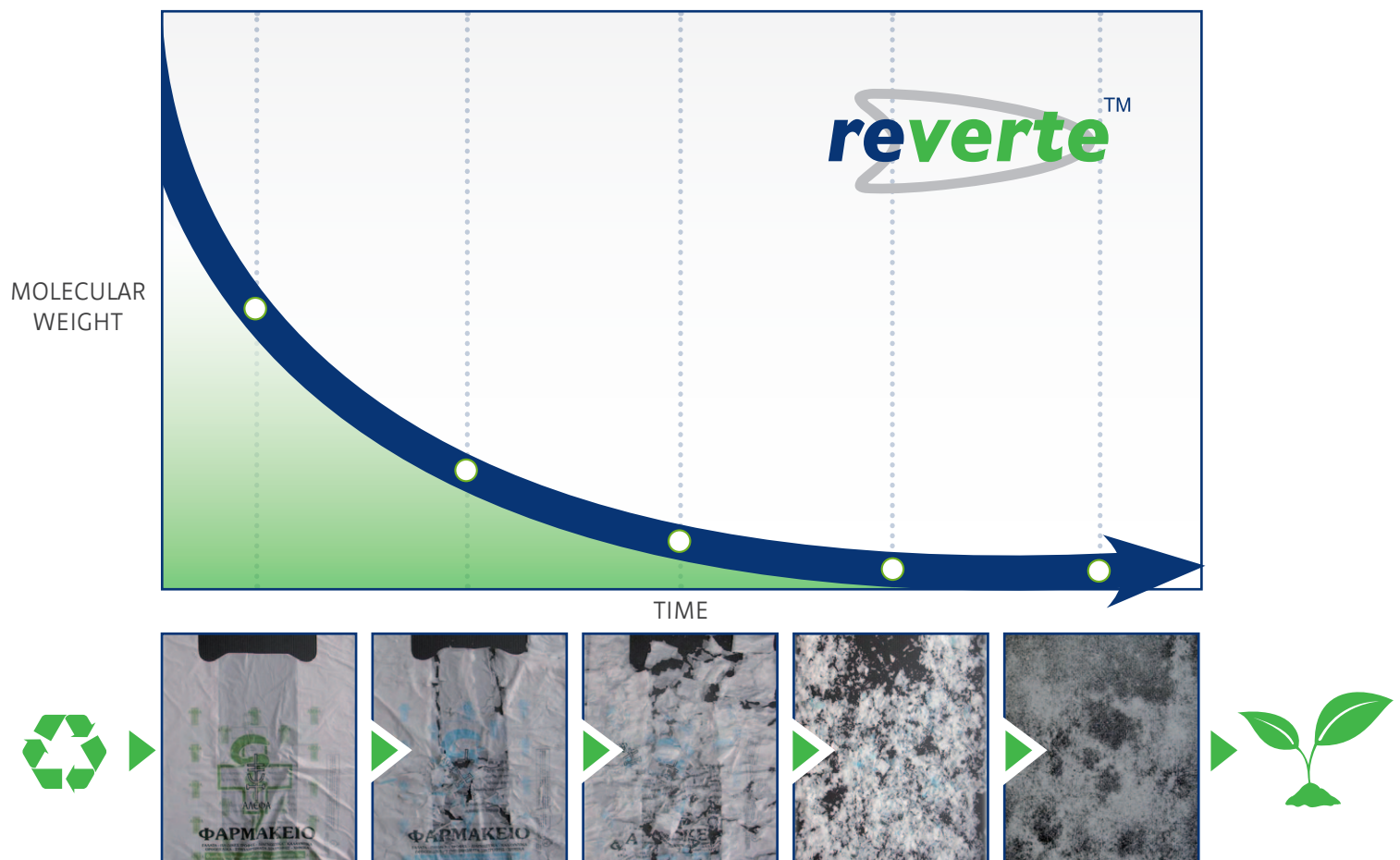


## Oxo-biodegradability

The term 'Oxo-biodegradability' is a hybridisation of two words; oxidation and biodegradability. It defines clearly a two step process initiated in this case by the Reverte® additive degrading (breaking up) the polymer chain in order to make it available for biodegradability within the environment when a treated item has finished its useful life.

The oxidation phase reduces the polymer molecular weight and introduces oxygen into the structure. This process transforms the plastic from long strands to much smaller lengths. By reducing the chain length of the polymer the material loses its physical strength, making it brittle and non-plastic. The biodegradability aspect refers to the conversion of these lower molecular weight species by bacteria into biomass, CO<sub>2</sub> and H<sub>2</sub>O.

# Technology



Reverte® is well suited to a wide range of processes and applications, has extensive food contact approvals and has been used for many years to provide a reliable and reproducible oxo-biodegradable property to plastics around the world.

## Oxo-biodegradables

- Helps reduce the impact of plastic waste on the environment.
- Adds value to products and brands.
- Small addition (generally 1%) renders standard polyolefins oxo-biodegradable.
- No modification or investment in machinery required for manufacturers.
- Cost effective method of enhancing the environmental credentials of plastics.
- Allows all the performance aspects of your polymer blend to be maintained.

## Why Reverte is the technical leader

- The most advanced oxo-biodegradable on the market.
- Unrivalled degradation profile offering confidence in shelf life and after use degradability.
- Individual test data supporting degradation and biodegradation of Reverte treated materials.
- Full in house manufacturing and laboratory facilities.
- Excellent physical and optical properties in blown and cast films.
- Over 25 years expertise in the manufacture and development of innovative products for the plastics industry.





# Testing and Standards

Testing and product validation is a critical aspect of supporting an oxo-biodegradable product, and one which Wells Plastics takes extremely seriously. Wells has a dedicated laboratory and highly qualified staff who conduct quality control degradation profile testing in order to determine the suitability of a formulation for a given application. In addition to this we utilise a wide range of bespoke manufactured test chambers in order to conduct these tests in a timely fashion to support Reverte®.

For more information please refer to:

[www.wellsplastics.com](http://www.wellsplastics.com)

[www.reverteplastics.com](http://www.reverteplastics.com)



Reverte is being used in all types of film including trash bags and bin liners

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