



## Environmental Office Products

Suite 500 - 701 Brazos - Austin - Texas - 78704 ☎ 512-334-6964 e: [green@bcwofficeproducts.com](mailto:green@bcwofficeproducts.com)

### *Introducing a range of 100% Bio Degradable & Recyclable products for the office, home or warehouse*

- *Help reduce landfill as these products biodegrade in 8-12 months*
- *Meet your company environmental targets by safely disposing of your polypropylene office products*
- *Protect the environment and enhance your company image*



All these products utilize an oxo-biodegradable additive which rapidly degrades the product when discarded or left in direct sunlight. The product will ultimately biodegrade and in most cases will fragment in 8-12 months after suitable disposal meaning you are caring for your office as well as the environment!

And it doesn't stop here...we can make virtually any plastic product in this material!





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## Corporate Responsibility & the Environment



There has been a great deal of pressure put on individuals and companies to be more 'green' and of particular concern is the ever growing amount of non biodegradable plastics that end up in landfill sites. Whilst the use of office products has never really been seen as a major contributor to environmental damage, it is worth sparing a thought for the many files, plastic cups, waste sacks and general waste that is generated daily.

Ultimately, there is simply no need to continue to use non biodegradable plastics whilst an option now exists that will do the environment good and the image of your company.

## Endless Possibilities

As our products rely on an additive to regular polypropylene, there are endless possibilities to make biodegradable plastic products that are intended to be thrown away after short usage. By varying the amount of additive used, we can decrease the overall time it takes for the product to biodegrade. This makes an ideal platform for the production of:



Plastic cups

Product and food packaging

Plastic cuttlery

Refuse sacks

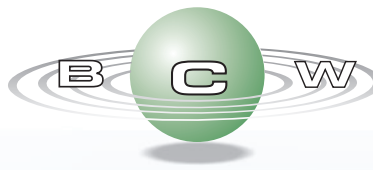


Distribution material - bubble wrap etc

Office products currently in production for the UK market







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## How does it work?

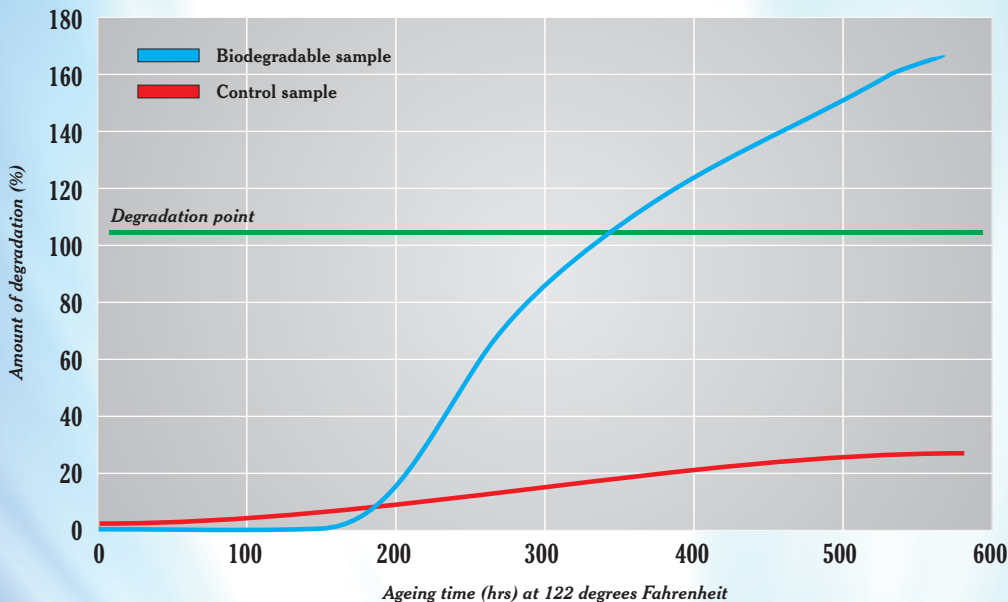
We use a specially formulated additive with regular polypropylene to achieve oxo biodegradation. The process results in a plastic that bio degrades through prolonged, direct sunlight or heat and moisture. The end result actually enhances the environment by producing a biomass that can be absorbed into the soil.

## How long will it last in normal conditions?

Under normal conditions, these products will last as long as any other plastic product, however, the biodegradation is activated by prolonged, direct sunlight or heat and therefore care should be taken as to their storage.

## Are these products tested and verified?

We have conducted extensive tests under laboratory conditions that significantly accelerates the ageing process. Tests were carried out using a polypropylene sheet containing our special additive and placed in an ageing cabinet subjected to constant UV light and heat.



Biodegradable sample remained stable for approximately 140 hours after which it rapidly oxidised to embrittlement at around 340 hours.

Under natural conditions, we can suggest that ageing for 12 hour days at a constant temperature of 70 degrees Fahrenheit would result in a 3 month dwell time followed by degradation to embrittlement in a further 4 to 6 months.

The time period can be adjusted by varying the amount of additive used.

## Technical Details



Chain Scission through oxidation by certain metal ions:



The metal ion catalyst is regenerated thus allowing reaction to continue and chain lengths to become progressively smaller.

The molecular weight (mw) of the polyolefin is repeatedly reduced by chain scission. When the mw reaches 4000-10,000 "live soil" containing bacteria and fungi can begin to consume it in a composting environment. This bio-digestion results in CO<sub>2</sub>, H<sub>2</sub>O and biomass being produced and thus the polymer is totally biodegraded into the environment.



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Below is a selection of some of the products we have in production for the UK market. We are now taking orders for the US market and can in most cases produce specific products to order providing they are similar enough to our current range. Bespoke products outside of this can be produced but would incur re-tooling costs.

Please feel free to contact us to discuss your particular requirements. Please note that delivery and production times are about 14 weeks from placement of order



Lever Arch Files



Clip Files



Popper Wallets



Cut Flush Folders



Multi Punched Pockets



Project Files



Ring Binders



Bubble Wrap



Refuse Sacks

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for wholesale inquiries***