www.d2w.net

Controlled-life
Plastic Technology

"Some things,
you want to keep forever,
but definitely not the plastic!"

Symphony environmental
A British Public Company

Controlled-life Plastic Technology

Plastic is strong, durable, versatile, lightweight, safe and virtually indestructible.

All plastic will eventually degrade and biodegrade, but modern plastics can last in the open environment for many decades after their useful life. This plastic pollution can be controlled and reduced by using d_2w intelligent plastic technology.

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d_2w is a polymer-based masterbatch made with specially developed IP and tested for eco-toxicity. When d_2w is placed inside the plastic product, it will control and shorten the degradation and biodegradation process. There is no need to stop using plastics – add just 1% of "d_2w inside" your normal plastic product at the extrusion stage and leave the rest to nature.

Products made with d_2w Controlled-life Plastic Technology are re-usable and recyclable and have been tested for food contact.

Products made with d_2w can be found in more than 80 countries in a multitude of applications for some of the largest companies.

d_2w
An intelligent solution
A brand that adds value to your brand

A no-change added-value solution

- **No need to change designs or suppliers - just add d_2w!**
- **Products made with d_2w will harmlessly and automatically self-destruct after the product has served its purpose - more quickly than straw and twigs and much more quickly than normal plastic.**
- **Heat, light and stress accelerate the process - plastics should be disposed of responsibly but if littered, degradation can take place within a few short months when exposed to hot climatic conditions.**
- **d_2w plastics are not currently marketed as compostable, nor are they intended to degrade under anaerobic conditions in landfill.**
- **They can be recycled with other oil-based plastics - unlike "compostable" plastics, which will ruin a normal plastic recycling process.**

Why choose d_2w Controlled-life Plastic?

Normal plastic	d_2w Controlled-life Plastic Technology
• Used throughout industry. Tested and proven safe for food, medical, farming and many other applications • Can be re-used • Will eventually degrade to CO_2 and H_2O but can take many decades • Will not meet any degradability or biodegradability standards • Can be recycled, though stabilisers will normally be required to replace properties lost during the recycling process • Made from a by-product of oil, so nobody is importing extra oil to make it	• d_2w improves the excellent properties of normal plastic by controlling and reducing its lifespan and therefore making it more acceptable • No change in performance and optical properties of the normal plastic product • Low cost, because products made with d_2w comprise more than 99.5% normal polymer and are made with the same machines • Can be tested according to ASTM D6954 • Can be re-used and recycled in the same way as normal plastic • No harmful residues

Responsible use of plastic - The Three R's

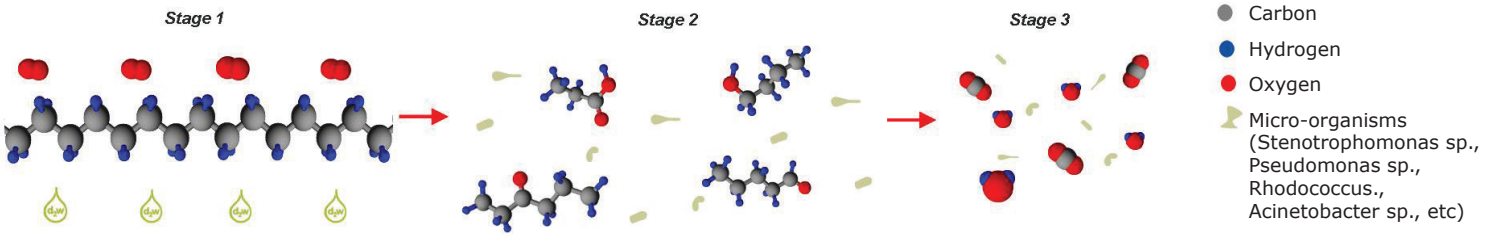
REDUCE: **d_2w can help reduce the burden of plastic waste in the environment**

RE-USE: **d_2w-based products can be re-used many times during their service-life**

RECYCLE: **d_2w-based products can be recycled and made from recycled polymers (see www.biodeg.org/recycling.htm)**

How does d_2w Controlled-life Plastic work?

- **Stage 1: d_2w additive is included in the basic polymer resin during the manufacturing process. It breaks the molecular chains.**
- **Stage 2: Then, at the end of its predetermined service life, the plastic starts degrading in the presence of oxygen by a process of oxidation, which is accelerated by light, heat and stress.**
- **Stage 3: Finally bio-degradation is completed by micro-organisms.**



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d_2w® Controlled-life Plastic Technology

"We do not inherit the earth from our ancestors, we borrow it from our children"

Native-American Proverb

Symphony environmental

A British Public Company

Symphony Environmental Ltd
Elstree House, Elstree Way
Borehamwood
Hertfordshire WD6 1LE

Tel: +44 (0)20 8207 5900
Fax: +44 (0)20 8207 5960
www.d2w.net
info@d2w.net

ISO 9001-2008 | Oxo-biodegradable Plastics Association | Market of London Stock Exchange | Society of Plastics Engineers (US) | Millennium Award | ASTM Standards Worlwide | Society of the Chemical Industry (UK) | British Brands Group