

## SYMPHONY ENVIRONMENTAL TECHNOLOGIES PLC

### NEW LCA PUTS d<sub>2</sub>w PLASTICS AHEAD OF BIO-BASED and CONVENTIONAL PLASTICS

Symphony Environmental Technologies plc ("Symphony", the "Company" or the "Group"), the specialist in advanced plastics technologies including controlled life and anti-microbial products, and waste-to-value, and anti-counterfeiting, systems, is pleased to report the results of a Life-Cycle-Assessment (LCA) undertaken by the Intertek Group plc ("INTERTEK"), the leading provider of environmental quality and safety services to industries and governments around the world.

The LCA, which compared Symphony's d<sub>2</sub>w oxo-biodegradable plastic carrier bags and bread bags with conventional and bio-based plastic bags, puts the environmental credentials of Symphony's d<sub>2</sub>w plastic bags ahead of the other types of plastic.

This LCA, sends a clear message to supermarkets, bakeries, and other commercial users of plastic products.

Symphony considers that it also confirms that the Government of the UAE made the right decision when it made oxo-biodegradable technology compulsory for a wide range of plastic products.

INTERTEK had prepared an LCA in 2011 for the UK Environment Agency, comparing the same types of plastic but with terms of reference which prevented them from considering the effects of litter.

Reacting to the report Symphony CEO, Michael Laurier said: **“Plastic litter is a serious problem, which cannot be ignored by calling it a ‘behavioural issue’. While only 0.75% of plastic carrier bags enter the litter stream each year this amounts to over 48 million bags in the UK alone as estimated in this LCA. The LCA confirms that oxo-biodegradable plastic offers real environmental benefits.”**

Key findings from the new LCA:

- The oxo-biodegradable bag performed 75% better than the conventional bag in the litter category. In all other categories the oxo-biodegradable and conventional bags were almost the same.
- The bio-based bag had the worst performance in 10 of the 11 environmental impact categories\*. The bio-based bag was superior to the conventional bag in only the litter-effects category, but inferior to the oxo-biodegradable bag in that category.

- The impact of oxo-degradable plastics in landfill is the same as conventional plastics, with no anaerobic degradation and no emission of methane. The report further confirmed that bio-based bags emit methane (a powerful greenhouse gas) in landfill.
- Bio-based plastic cannot be recycled with conventional plastic as part of a mixed, post-consumer waste stream without compromising the recycling process.
- The inclusion of 50% recycled content reduced the global warming impact of the conventional bags by 19%. However, the recycled content had a negative effect on seven of the environmental impact categories, mostly due to extra transportation and the need to make them thicker and heavier for the same strength.
- the best way to reduce the impact of plastic carrier bags is to re-use them more often, minimize the transportation needed for recycling, and make them oxo-biodegradable.

## ENDS

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For further information on oxo-biodegradable plastic, go to [www.biodeg.org](http://www.biodeg.org)

### NOTE TO EDITORS

\*Environmental Impact Categories:

- *Global warming potential*
- *Litter effects*
- *Abiotic depletion*
- *Acidification*
- *Eutrophication*
- *Ozone layer depletion*
- *Photochemical Oxidation*
- *Human Toxicity*
- *Fresh water aquatic ecotoxicity*

- *Marine aquatic ecotoxicity*
- *Terrestrial Ecotoxicity*

### **About INTERTEK**

INTERTEK is a leading provider of environmental quality and safety solutions serving a wide range of industries and governments around the world.

### **About d<sub>2</sub>w**

The fundamental point about oxo-biodegradable technology is that the prodegradant additive included at manufacture turns ordinary plastic at the end of its useful life in the presence of oxygen into a material with a completely different molecular structure. At that stage it is no longer a plastic and has become a material which is inherently biodegradable in the open environment in the same way as a leaf. (For a video of plastic film degrading, go to <http://degradable.net/play-videos/4>)

### **About Symphony Environmental**

Symphony is the only British public company specialising in oxo-biodegradable plastics. It has a diverse and growing customer-base and has established itself as a global business. It is now serving more than 95 countries through 67 Distributors and is not exposed to any significant extent to the economic recession in the UK and the EU. It has invested heavily in R&D and is continuing to develop innovative technology.

Symphony is a member of the Oxo-biodegradable Plastics Association ([www.biodeg.org](http://www.biodeg.org)); the Society for the Chemical Industry (UK); the British Plastics Federation; the European Organisation for Packaging & the Environment (EUROPEN), and the Pacific Basin Economic Council.

Symphony actively participates in the Committee work of the American Standards organisation (ASTM), the British Standards Institute (BSI), the European Standards Organisation (CEN) and the International Standards Organisation (ISO).

- Symphony has also launched a range of additives which give plastic products anti-microbial and anti-fungal properties.
- Symphony has also introduced tracing and electronic tagging technology to protect against counterfeit goods.