Biodegradable

Scientifically proven plastic technology

d₂w is a masterbatch technology which turns ordinary plastic, at the end of its useful life, in the presence of oxygen, into a material with a different molecular structure.

At the end of the process, it is no longer a plastic, and has changed into a material which is biodegradable, by bacteria and fungi, in the open environment.

With over 20 years of scientific research behind it, d₂w biodegradable technology is perfect to use with most types of single-use plastics, bags, packaging films and bottles.





Tested to the following international standards:

American Standard: ASTM D6954

British Standard: BS 8472 British PAS 9017: 2020 French Accord: T51-808 Saudi Standard: SASO 2879 UAE Standard: 5009:2009

Mexican Standard: NMXE-E-288-NYCE

Scan the QR code to see d_3 w in action:





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The life cycle of plastic products enhanced with d₂w biodegradable technology



Only 1% of d₂w masterbatch is added to regular plastic at the manufacturing stage



Products and packaging made with d₂w look and feel like regular plastic



They can be recycled if collected - but if they escape into the open environment



Sunlight and Oxygen will help to convert the plastic into biodegradable materials

Without leaving toxic residues or microplastics behind.

Stages of biodegradation with d₂w® technology:

- 1. d₂w® masterbatch is added at the manufacturing stage.
- **2.** Film containing d₂w® is extruded and then converted into bags or packaging.
- **3.** The product behaves like conventional plastic during its intended service life.
- **4.** After its service life, the bag or packaging may end up in the open environment.
- **5.** The d₂w® then takes effect and the product begins to degrade in the presence of oxygen.
- **6.** The product will degrade and biodegrade in a continuous, and irreversible process, leaving nothing but carbon dioxide, water and humus.

Straws



Coffee Pods



Bread Bags

Added Value with d₂w®

- · Only 1% inclusion rate.
- · Works with virgin and recycled plastic.
- Works with PE & PP.
- No change to the manufacturing process.
- Product does not lose any of its original properties during its useful life.
- Our customers receive full support from Symphony's Technical and Marketing teams.

Helping to protect the environment from persistent plastic litter.

Disclaimer: The information provided is general information. For specific applications, please consult our Technical Department. The buyer is responsible for advertising and labeling of products made with d₂w, and for compliance with all applicable laws and codes of practice in the place where such products are to be supplied, advertised, or used.

d₂w is tested to work in terrestrial and marine environments.













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