



2008 - 2018
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Biodegradable Plastic Cards

BIO-CARDS are available in a range of colours, including a transparent finish to create uniquely impacting cards. Adaptable to all applications, it is ideal for companies that are particularly sensitive to green and ecological efforts.

Biodegradability is a characteristic that some substances and organic materials have that allow them to degrade into more simple substances through a microorganism's enzyme activities. If this biological process is complete, there is a total conversion of the initial organic substances into simple inorganic molecules. However, for some materials, this process could require many years as is for plastics, the addition of additives significantly accelerates this course (process).

BIO-PVC is an innovative material of the latest generation that makes most of these principals. Small amounts of the additive are inserted during the manufacturing process. The additive breaks down the polymer's molecular chain, and at the end of the material's life cycle, the product will degrade. The additives are able to transform the polymer molecule notably, accelerating its decomposition. The process only occurs in favourable environments, such as composting, water or other elements must necessarily be present.

BIO-PVC offers a double advantage, its versatility and biodegradability, in addition, it guarantees excellent printing results, maintaining the same physical characteristics of PVC. BIO-PVC moreover has a low environmental impact, as CO2 emissions are inferior to the emissions associated with the production of traditional materials used in manufacturing plastic cards. In addition, its production requires a lower energy consumption and an inferior use of raw materials.



Biodegradable Card Holders and Wallets

Our range of biodegradable ID card holders contain the oxo-biodegradable additive which is mixed into the PVC plastic during production. Once the holder is no longer required, place it in your Green recycling bin. Oxo-biodegradable will let air into the plastic, which breaks down the carbon bonds in the polymer chain – until chemically, it's no longer plastic. It's microbe food. It'll dissolve into nothing but water, biomass and carbon dioxide. No toxic residue. No guilty conscience.

The term 'Oxo-biodegradable' is a hybridisation of two words, oxidation and biodegradable. It clearly defines a two step process initiated by the Reverte additive to degrade the polymer chain (break up) and make it available for biodegradability within the environment when a treated item has finished its useful life.

Why do we need oxo-biodegradable plastic? Because thousands of tons of plastic waste are entering the world's environment every day and will remain there for decades. In no country is it possible to collect all the plastic for recycling or other forms of responsible disposal.

How does it work? A very small amount of pro-degradant additive is put into the manufacturing process. This breaks the molecular chains in the polymer, and at the end of its useful life the product degrades. It will be consumed by bacteria and fungi after the additive has reduced the molecular weight to a level which permits them access to the carbon and hydrogen.

Does oxo-biodegradable plastic biodegrade, or does it just fragment? Oxo-biodegradable plastic does just what it says, the clue is in the name – It is called oxo-biodegradable plastic because it is biodegradable. Oxo-biodegradable technology converts plastic products into biodegradable materials at the end of their useful life, and it does this by oxidation in the presence of oxygen. There is nothing misleading about it.

Oxo-biodegradable plastic degrades and biodegrades in the open environment in the same way as nature's wastes, only quicker. What's more, it does so without leaving any toxic residues or fragments of plastic behind. If oxo-biodegradable plastic merely fragmented without biodegrading, CEN (European Committee for Standardization) would not have defined oxo-biodegradability as "degradation resulting from oxidative and cell-mediated phenomena, either simultaneously or successively" and the American, British and French standards organisations would not have included tests for biodegradability in ASTM D6954, BS8472 and ACT51-808.



ID Card Printers



ID Printer Ribbons



Lanyards



ID Accessories



Printed & Personalised Cards



Access Control Cards



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Biodegradable and Recyclable Lanyards

Bamboo: The bamboo fibre is 100% biodegradable, so when the lanyard is no longer required it will degrade naturally without releasing any toxic residue into the atmosphere. These bamboo lanyards come in 10mm thickness with a metal lobster clip, a 90cm drop and a safety breakaway from stock or custom printed to your own design and specification with free artwork.

Recyclable: Custom printed to your own design and specification with free artwork. The material is manufactured from recycled plastic bottles, meaning the material of the lanyard can also be recycled. The safety breakaway is currently non-recyclable as it is too brittle but development is ongoing to create one which meets safety standards.

