



Confederazione degli Imprenditori Italiani nel Mondo

Compostability Unearthed

Nowadays, the terms degradable, biodegradable, compostable are commonly used to describe packaging or bags but often the terms are used incorrectly and the source of much confusion. To help understand the terms, here are some descriptions:

- Biodegradable plastics – these are bioplastics which degrade through the action of naturally occurring micro-organisms.
- Compostable plastics – these are bioplastics which like their biodegradable brothers degrade through the action of naturally occurring micro-organisms. These plastics can be safely composted together with the organic fraction of the municipal solid waste to produce compost, a soil improver. Compostable plastics do not hamper the composting process because they are biodegradable, disintegrable, safe and do not pollute the final compost. Compliance with the European Norm EN 13432 indicates that all these requirements are satisfied. All Novamont products are certified as compostable according to EN 13432.
- Degradable plastics – these plastics, sometimes referred to as oxo-degradable plastics, are based on polyethylene but contain a metal additive to promote degradation. Degradation occurs in the form of repeated fragmentation following exposure to UV light or dry heat and can be ‘programmed’ into the packaging typically taking between 18 months and four years. Up to now, no degradable plastic has managed to get certified according to EN 13432

Following the development of the EU Packaging Regulations (adopted also in the UK), an EU standard for compostable and biodegradable packaging - EN 13432 - was introduced and adopted by all European states (equivalent standards exist in the USA, Canada, India and Australia). These standards ensure that a product is biodegradable, compostable and is safe. In order to gain certification to BS EN13432 (the British ~~version~~ standard harmonized to the European norm, published by the British Standards Institution) the final packaging product must be fully tested and approved. The tests include:

- Biodegradability - determined by measuring the actual metabolic conversion of the compostable material into water, carbon dioxide and new cell biomass within 6 months.
- Disintegrability – material is mixed with organic waste for three months after which time no more than 10% of material fragment should be larger than 2mm.
- Absence of any negative effect on the composting process.
- Low levels of heavy metals and no adverse effect of the quality of compost produced.
- The composted packaging material must also not have pH, salinity, volatile solids, N, P, Mg K different than the control compost.

It is worth remembering that these tests are undertaken in conditions similar to those in a commercial composting system and not a home composter. Also, each of these points is needed together to prove compostability, for example a product maybe biodegradable but not compostable as it does not disintegrate within a composting cycle.

There are a number of certification bodies across the EU. In the UK the main certification body is the Composting Association who operate a certification scheme in partnership with the German certification body Din Certco. Packaging which is certified to BS EN 13432 is also an acceptable feedstock to commercial composting systems which comply with BSI PAS100 for composted products. In addition to certification to BS EN 13432 it is possible to have products certified as “home compostable” by the Belgian certification company, AIB Vinçotte. Once a product has been certified as compostable it can claim to be compostable and display the relevant logo.

When looking to purchase compostable bags it is essential that reference to EN 13432 is made in any tender. Purchasing authorities should also ask to see evidence that the products to be purchased are certified. It is worth noting that no degradable plastic has ever met the criteria for EN 13432 and so should not be considered compostable. In addition, recent court cases in Australia and in Italy decided that the use of the word ‘degradable’ could be misleading to the public and that there was no scientific evidence that they bestowed any environmental benefit see www.european-bioplastics.org for more details.