

Definitions for Environmental Disposal and Recycling of Packaging



RECYCLED PACKAGING

Definition of Recycled.

A recycled material must contain a significant amount of material which has been previously used for another purpose. As such, it cannot be simply the re-worked waste from a manufacturers own process.

Although the amount of recycled material which is required to be considered “significant” is not quantified by the law, most major organisations would consider materials with less than 50% recycled content to “contain” recycled material rather than be able to say they are actually “recycled”.

Types of Recycled Material.

Recycled materials may be sourced from:

- Post industrial (recycling of waste from processes before retail sale).
- Post consumer (recycling of waste after use through local collection or special collection points). Use for food packaging may be restricted, depending on the actual process used to avoid harmful contamination.
- Special facilities (recycling facilities offered by an organisation or material supplier to allow specific recycling of their product).

RECYCLABLE PACKAGING

Definition of Recyclable.

A recyclable material is one which may be utilised to produce further quantities of the same (preferably) or another, material.

Legally, any pack which is composed of recyclable materials can claim to be recyclable, however actual recyclability depends on two factors:

- The nature of the material itself.
- Availability of recycling facilities.

The Nature of the Material.

Recyclable materials must be composed of:

- A single recyclable material (eg carton board, or PET plastic)
- Multiple materials which can be recycled by a single route.
- Multiple materials which can be easily separated and recycled by different routes.

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Availability of Recycling Facilities.

Recycling facilities may be:

- Post industrial (recycling of waste from processes before retail sale).
- Post consumer (recycling of waste after use through local collection or special collection points).
- Special facilities (recycling facilities offered by an organisation or material supplier to allow specific recycling of their product).

On-Pack Recycle Labelling (OPRL)

One way of defining recyclability in the UK is to use the OPRL system. This designates either the entire product or (if possible to separate) the component parts of a pack as to whether they can be recycled under the following categories:

- Widely recycled – can be recycled in over 60% of districts within the UK.
- Check local recycling – can be recycled in some areas only (less than 60%).
- Not currently recycled – cannot be recycled in the UK

Where a paper or board pack is laminated with plastic it can only claim to be widely recycled if:

- The laminate is a small enough proportion to make it worthwhile recycling as paper/board (typically less than 20% by weight).
- The laminate is present as a technical requirement (to protect the pack from the product or vice versa).
- The laminate cannot be removed easily before recycling.
- The laminate can be removed easily in the recycling process.
- It has been submitted to and tested by WRAP to confirm the above.

This situation is assessed annually and will only remain in force as long as the amount of laminated board entering the waste stream is relatively low. Check latest guidelines to confirm current status.

NOTE: Window patches or loosely bound plastic are expected to be removed from carton board prior to recycling and so must have their recycling status (normally Not currently recycled) stated separately to the board.

BIODEGRADABLE PACKAGING

Definition of Biodegradable.

A biodegradable material is any material, composed primarily of organic matter, which can be broken down by the action of microbes in the environment, to yield water, gas and the minimum of residual matter.

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Although practically any organic material will break down in this manner, given enough time, there are standards for biodegradability that require the product to biodegrade within a reasonable time frame. In addition, actual biodegradability depends on two factors:

- The nature of the material itself.
- Conditions for biodegradation.

The Nature of the Material.

Biodegradable materials must be composed of:

- More than 90% organic matter.
- Capable of degrading within a short timeframe (months rather than years or tens of years).
- EN13432 requires degradation to occur within 12 weeks by one of the accepted methods (see Conditions for Biodegradation below).

Conditions for Biodegradation.

Biodegradation can occur under the following conditions:

- Open to the air at normal temperature to yield Carbon Dioxide and Water.
- In an air restricted environment (eg land fill) to yield Methane and Water.
- In an accelerated environment at slightly elevated temperature by Composting to yield Carbon Dioxide, Water and a small amount of non-toxic residue.

COMPOSTABLE PACKAGING

Definition of Compostable.

A compostable material is any material, composed primarily of organic mater, which can be broken down by the action of microbes at an elevated temperature, to yield water, gas and a small amount of non-toxic residual matter suitable for growing plants.

Most “biodegradable” materials will break down faster in the accelerated conditions used for composting. However it is important to note that not all biodegradable materials can be composted. Ability to compost will depend on the following factors:

- The nature of the material itself.
- Conditions for composting.

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The Nature of the Material.

Compostable materials must be:

- Composed of either more than 95% known (certified) compostable materials or pass a recognised composting test to confirm compostability.
- Contain no known environmentally harmful substances which could contaminate the compost.
- Capable of breaking down to Carbon Dioxide, Water and no more than 10% residual solids that will not pass through a 2mm sieve after a specified timeframe.
- EN13432 requires composting to have proceeded to the required level within 12 weeks in an industrial composting environment (see below).

Conditions for Composting.

Composting can be carried out under two types of conditions:

- Industrial composting is a controlled process which ensures the compost is kept at a controlled elevated temperature and has sufficient air flow for optimum composting conditions. These are the conditions under which certified testing is carried out and to which standards such as EN13432 refer.
- Home composting is generally a predominantly uncontrolled process where the individual may either optimise conditions by using a composter of some kind or simply have a pile of garden waste in a corner. As such, this process can proceed at any speed from the 3 months for perfect conditions up to 2 years for totally open small scale composting. As yet, whilst attempts have been made to establish “home composting” standards, these are not yet agreed or meaningful.

DEGRADABLE PACKAGING

Definition of Degradable.

A degradable material is any material, which will break down into small particles, that are considered to be of little impact as a residual substance in the environment, in a given time frame.

Most materials of this kind last for considerably longer than is expected of biodegradable or compostable materials and there is no set standard for this type of pack. Degradable materials fall into two main categories:

- Materials which will breakdown under all normal conditions of use and storage.
- Materials which degrade when exposed to light and/or moisture, such as “oxy-degradable” plastics.

Degradation periods are typically 1 to 3 years, depending on conditions.

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