compostable packaging





What is compostable packaging?

It is biodegradable packaging that breaks down under specific composting conditions back into water, carbon dioxide (CO2) and biomass.

Why compostable packaging?

Park2Nature from Parkside has a number of benefits:

- **Sustainable** Our compostable packaging is made from renewable resources such as plant fibres, reducing the reliance on petrochemicals
- Cradle-to-cradle Packaging can be returned back to nature after use
- Waste reduction Designed to replace multi-layer barrier laminates that can't or aren't being recycled

What is it made from?

Our compostable packaging is derived from a range of natural products such as paper, eucalyptus fibre, cassava and corn starch.

What product categories are suitable for compostable packaging design?

Park2Nature packaging is ideally suited to dry goods up to 1kg in weight (grade dependent) that require barrier against oxygen and moisture. They have a natural barrier to aroma, oils (including mineral oils) and grease.

What about organic recycling, collection of biodegradable matter from homes and the Government's view?

97% of local councils have green waste collections (Source: WRAP).

This is an existing waste collection scheme that could be utilised for organically recycling compostable packaging.

What is WRAP's position on packaging?

The Waste and Resources Action Programme (WRAP) believes that by 2025, 100% of plastic packaging should be reusable, recyclable or compostable. By 2025, 70% of plastic packaging should also be effectively recycled or composted and that action should be taken to eliminate problematic or unnecessary single-use packaging items through redesign, innovation or alternative (reuse) delivery models. Finally by 2025, all plastic packaging should contain an average recycled content of 30%.

Which key brands have a statement on changing to compostables?

Over 50 leading brands have signed up to the UK Plastics Pact (Source: UK Plastics Pact - WRAP).

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What are the alternatives to compostable flexible packaging if I want to be sustainable?

All packaging has a sustainability role in protecting and preserving goods. However, the alternatives to compostable flexible packaging designs are plastics, that are either non-recyclable or not widely recycled.

It is estimated that some 1.2 million tonnes of plastic film from packaging arises in the UK waste stream every year. Of these, two thirds are post-consumer i.e. from household sources. The collection, separation and reprocessing of household film is not widely implemented in the UK; as a consequence, end markets for the recycled material is limited.

What is the relative cost of compostable packaging?

This will be dependent on what structure is being replaced but typically they are 2 – 3 times more expensive than traditional petrochemical-based plastic packaging. This is mainly down to the low price of oil-based plastics and the economies of scale that exist today in production. It is hoped that this will reduce over time.

What do recycling companies say about compostable packaging?

The main recycling companies such as Virador and Veolia have signed up to the UK Plastics Pact and have facilities for organic recycling such as anaerobic digestion and composting which can take Park2Nature designs.

How does compostable packaging fit with the concept of a circular economy?

When organically recycled, compostable packaging is a true cradle-to-cradle solution.

How do I know it will actually compost?

Our laminates are independently tested and accredited to prove they break down at set composting conditions and are checked for eco-toxicity to ensure that they have no negative impact on the composting environment.

Does compostable packaging contaminate recycling supply chains?

Currently, less than 13% of local authorities provide kerbside collection of flexible packaging and multilayer laminates are not currently recycled in the UK (Source: WRAP).

Our compostable packaging is organically recyclable and is a viable alternative to petrochemical-based plastic packaging that isn't being recycled and is currently either directed to landfill, export or incineration.

How long does Park2Nature take to compost?

Home composting – less than 26 weeks at ambient temperatures (< 30°c). Industrial composting – less than 12 weeks at 60°c.

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What happens if compostable packaging gets into landfill?

Whilst recycling, anaerobic digestion, composting and incineration create value from waste, landfill has no value and is not a sustainable option in the future.

Compostable packaging will react in landfill the same as any other organic waste such as paper or wood.

Research has been undertaken which shows that organic waste in deep landfill is inert due to the lack of oxygen and moisture required to start bio-degradation and therefore does not create methane (Source: Environment and Plastics Industry Council Canada).

What happens if compostable packaging is littered?

No packaging should be littered but unlike petrochemical-based plastics, our home compostable packaging will start to biodegrade in the presence of microbes, moisture and oxygen at ambient temperatures.

What happens if compostable packaging ends up in the ocean?

8 million tonnes of plastic ends up in the oceans each year and by "2050 there'll be more plastic in the sea than fish..." (Source: Ellen McArthur foundation – New Plastics Economy).

Packaging, either petrochemical-based or bio-based, is not and should not be designed to be littered – but as the figures above show, it is happening. At Parkside, we are independently testing our home compostable laminates in a marine environment (ASTM D7081) and are seeing encouraging results regarding biodegradation. Our laminates are designed to break down at ambient temperature in the presence of microbes, water and oxygen and naturally biodegrade back into water, CO_2 and biomass without eco-toxicity.



At Parkside we know packaging makes the difference.

Leaders in compostable and conventional flexible packaging, we're ready to support you.





