

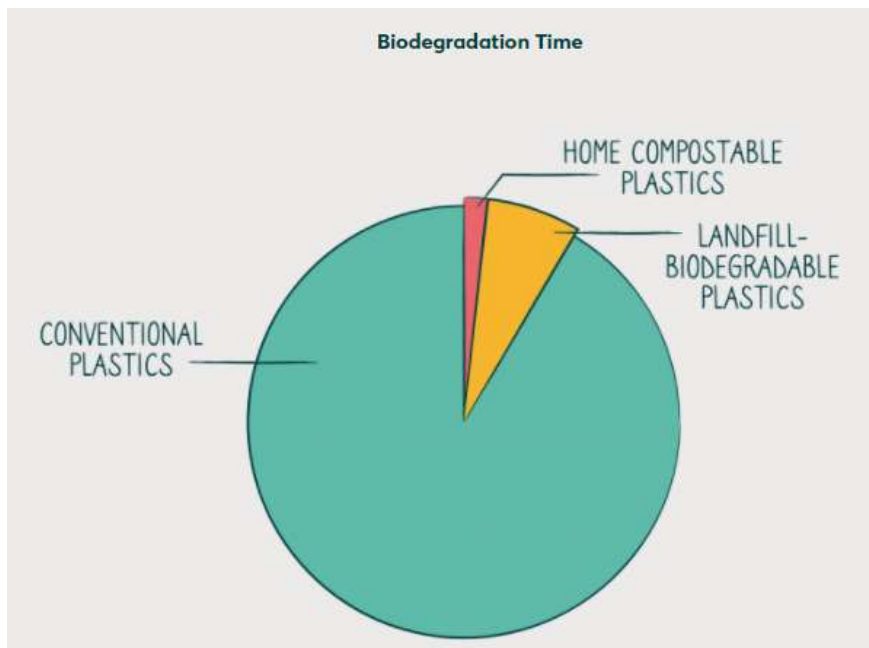
Home Compostable

Biogone's home compostable products will biodegrade in a **home compost, commercial compost facility (if the waste stream is available) or landfill**. Certified for home compostability in accordance with Australian/NZ standard AS5810.

Disposal:

- Recommend disposing of pet waste in a home pet poop compost (if you have one) or general rubbish bin (landfill).
- Recommend checking with your local council if your kerbside green waste bin accepts cat and dog waste (most councils don't).
- We do not recommend putting cat/ dog poo in a standard home compost bin.

Biodegradation Time



Home Compostable

Similar to commercial compostable plastics, home compostable plastics have an extra component in them, PBAT* which is a highly biodegradable material. This allows home compostable products to biodegrade in cooler temperatures such as home compost bins or landfills. Their biodegradation rates are longer than commercial compost facilities but still relatively fast being several months up to 1-2 years depending on the plastic thickness.



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Benefits of home compostable products:

- Can be disposed of in a commercial compost facility (if available), home compost pile, or rubbish bin destined for landfill. They can also be disposed of in some council green bins where permitted. Enquire with your local council.
- Will biodegrade in anaerobic conditions in a landfill. The latter condition allows their internal energy (methane) to be captured, which can also be used to generate electricity.

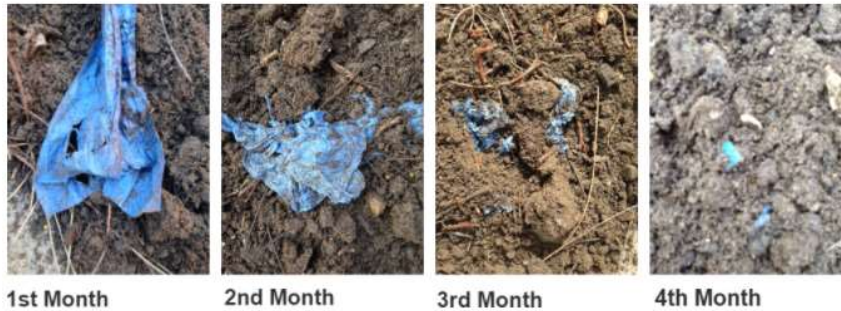
Note neither compostable nor home compostable plastics are recyclable. Their material will not mix with conventional plastics.

Testing Results

Product: Biogone Home Compostable Dog Poop Bag

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*PBAT (polybutyrate adipate terephthalate) is a biodegradable random copolymer. The co-polymer is available commercially as resin and as a compound with PLA or starch. Today, the building blocks are made from petrochemicals. As a "drop-in" polymer, PBAT resembles LDPE in its properties. The flexibility and toughness of this polymer make it ideal for blending with another biodegradable polymer that is strong and rigid.

PBAT is completely biodegradable and it does not break apart into microplastics and leaves no toxic residues.. It is added to the plant based material as it actually speeds up the biodegradation which allows the products to biodegrade in the time required for home compostable certifications.

A product made entirely from plant-based inputs would likely not biodegrade quickly enough for the certification.

So essentially, Biogone Home Compostable range is made from PBAT and plant-based materials, they are completely biodegradable and the PBAT is what allows them to biodegrade quickly enough for HC certification.

Commercial compostable

These are bioplastics that biodegrade under commercial composting conditions as per AS4736. Currently in Australia there are several limitations for commercial compostable plastics that make them not a sustainable option because:

For a compostable plastic to biodegrade it must be in a commercial compost facility with temperatures of 60 deg C, plenty of oxygen and good moisture levels. If those conditions are not met, the compostable plastic will not biodegrade as the microorganisms need those conditions to live.

Due to their different composition, compostable plastics cannot be recycled in the mainstream soft plastics. Their materials have different properties and would contaminate other conventional plastics if they were mixed together. If they cannot be delivered to a commercial compost facility, they need to go to landfill.

There are no separate recycling facilities that will sort out the compostable plastic from other plastic waste. Which means by default a compostable plastic will generally go to a landfill where it will not biodegrade.

There are very few commercial compost facilities in Australia, making it very unlikely that a commercially compostable plastic will ever be transported there.



When a commercially compostable plastic biodegrades its gaseous by-product is CO₂, which cannot be used for energy capture methods to generate green electricity (as opposed to the CH₄ generated from landfill-biodegradable plastics).

FAQs

Can all home compostable products be disposed to a home compost?

Products displaying the Home Compostable certification logo (AS5810-2010) are certified by the Australian Bioplastics Association as biodegradable and compostable, in a home compost. Whilst all home compostable products are themselves home compostable, their contents may not be. Make sure that the contents of your home compostable bag are also home compostable and if they are not, dispose of everything to a general waste bin (destined for landfill) where the home compostable bag will still completely biodegrade. Some examples of contents that may not be home compostable include pet waste and general household waste that is placed into a home compostable bin liner. Not all councils accept biodegradable plastics in their green waste bins, so double check what is accepted before disposing of your waste. If in doubt, all home compostable bags will completely biodegrade in a landfill.

Can I put my home compostable bin liner or dog waste bag in my green bin?

No. However it's best to check if your council accepts compostable packaging in the kerbside green waste bin. In terms of dog and cat poop, it's best to dispose of it in a pet poop compost (if available) or in the rubbish bin (landfill).

What's the difference between a home and commercial compost?

A home compost is your home compost :) This is where you can dispose of green or food organic waste at home. Commercial compost facilities accept kerbside food and green organics, from a green bin at home. The waste is taken to a facility where the temperature, moisture, and oxygen levels are monitored to create a formal biodegradation process.

How long will home compostable products take to biodegrade?

Depending on the plastic thickness and the home compost temperatures, the home compostable product can start biodegrading within 4-8 weeks and up to 1-2 years. The Australian/NZ standard AS5810 means products must biodegrade within 12 weeks.

Do we have commercial compost facilities?

According to the ABA (Australasian Bioplastics Association) there are approximately 150 Industrial Composting and Organics Recycling facilities in Australia. Some councils provide composting facilities through their kerbside waste collections via their green bin. However there are no state or national standards in terms of what they accept - some accept compostable packaging and some don't.

Which product should I buy (home or commercial)?



Based on the waste streams and infrastructure currently available in Australia, the best options are home compostable products as they biodegrade in home compost, commercial compost, or landfill. Commercial compost products only biodegrade in a commercial compost facility - a stream not set up or accessible to everyone across the country. Alternatively our landfill-biodegradable plastic products, which are stronger compared to compostable products.

Will the Victorian single-use plastic ban impact home compostable products?

No. The ban is not intended for home compostable products. We support the ban on single-use conventional plastics. Home compostable and landfill-biodegradable plastic are the perfect substitutes for everyday plastics while being conscious of the environment.