

What's the point of disposables being compostable?

Compostable disposables are designed to be recycled in an industrial composting facility together with food waste. That means there's no need for sorting, and the compostable cup, lid, burger box, knife and napkin can all go together without removing the ketchup and leftover chips. An extra bonus is that once food and disposables share one bin, other dry recycling bins are cleaner and easier to recycle.

Compostability isn't best for all situations. For example, Vegware wouldn't make compostable water bottles, as PET plastic already has a developed recycling infrastructure. But for food-contaminated disposables, compostability is a sensible solution.

How can Vegware help clients find composting solutions?

Our unprecendented engagement with the waste sector means Vegware is uniquely placed to help our clients realise their waste ambitions. Composting collections are still regional rather than UK-wide, but we are proud to be actively driving change. Our Environmental team are the UK's experts on routes to commercial composting - we've been working on this full-time since 2012. Here's an overview of the options:

- **COMPOSTING REGIONS** | Many waste collectors around the UK have an existing collection route taking used Vegware for commercial composting with food waste.
- **VEGWARE'S CLOSE THE LOOP** | To help more clients access commercial composting, Vegware has launched its own collections. This service is already in Scotland, Bristol, Gloucester and Worcester, with further expansion in development.

HERE'S OUR CURRENT LIST OF <u>UK REGIONS WITH TRADE COMPOSTING COLLECTIONS FOR VEGWARE CLIENTS.</u>

• **ON-SITE COMPOSTERS** | If your business has outdoor space, a use for compost, and staff to manage it, investing in an on-site composter can be an exciting and sustainable solution.

Keen to compost your used Vegware? Contact our Environmental team to find the best solution for your business. We offer Vegware clients expert support, every step of the way to zero waste.

Email environmental@vegware.co.uk or call on +44 3333 055 409.



How do compostables solve food contamination?

Combining plastic and card in foodservice packaging creates massive recycling challenges, as highlighted by the recent coffee cup recycling debate. Food contamination is inevitable, so the result is incineration or landfill. For disposables destined for serving food, it makes sense to use materials that can be recycled together with food. With compostable disposables, food isn't contamination, it's a vital ingredient in the composting process.

What's wrong with recyclable?

Everyone likes the word 'recyclable', but here's some news which highlights the real challenges of recycling used 'recyclable' packaging.

The UK exports 70% of its paper and 66% of its plastic for recycling, with no idea if it actually gets recycled. China took a lot of exported UK recycling, but over the years discovered it isn't good enough quality to recycle. Since January 2018, China has banned imports of household plastics, and only accepts cardboard and paper with less than 0.5% contamination. Other Asian countries are considering similar bans, to avoid becoming a dumping ground for unrecyclable waste. Food contamination is a major problem, and the British recycling industry worries that most UK card and paper won't meet China's standards.

What's the learning here? That in reality, card + plastic + food isn't recyclable.



What is Vegware made from?

Vegware makes catering disposables from plants. After use, they are designed for industrial composting with food waste. Vegware replaces conventional plastics with various plant-based materials. For example, PLA is a compostable material made from plants. PLA replaces the conventional plastic in coffee cup lining or sandwich windows, and it's the clear material in our cold cups and deli containers. Our hot cup lids and cutlery are made of a high-heat version of PLA.

Reclaimed sugarcane fibre is another practical material we use for our clamshells, plates and bowls. Known as bagasse, it performs really well, keeping heat in but not trapping condensation. Plus, it's renewable, a reclaimed by-product of the sugar industry.

Do plant-based materials work as well as plastic?

Absolutely. In the early days there were limitations, but not any more. Cafés can be confident that their plant-based disposables will function perfectly. We only use water-based or vegetable-based inks for our custom printing, and the print finish is great.

What's the difference between biodegradable and compostable?

Same process, different breakdown speeds. Forget the term biodegradable, as it tells us nothing about timescales (wood is biodegradable, but a log cabin can stand for generations). Compostable means something can break down in under 12 weeks and is therefore suitable for industrial composting. Make sure your disposables supplier has compostability certification — that's the real guarantee. Vegware holds the most extensive compostability certification of any UK packaging supplier.

What are composting conditions?

Compostable packaging needs to be in composting conditions in order to compost. Industrial composting creates the perfect balance of microbes, moisture and warmth, so that compostable packaging can be included in food waste recycling.

Home composting conditions vary with the skill of the householder, so we don't make any claims there, but there have been successful trials using hot compost bins.

How can composting reduce UK floods?!

Composting is a form of recycling which keeps resources here in our country, unlike much plastic and paper which is exported far overseas with no guarantee of it actually being recycled. Soils are in crisis, and UK Environment Minister Michael Gove has warned that British farms are 30 to 40 years away from "the fundamental eradication of soil fertility". Compost returns nutrients to the soil, and has the added benefit of improving soil structure, reducing the risk of floods.

What's the point if I can't compost it?

The earth has finite resources. Disposables are used for such a short time, so it makes sense to switch to renewable materials, reserving conventional plastics for applications where they can't be easily replaced. Lots of people enjoy using plant-based materials, knowing they are a simple way to reduce carbon and help their business go green.

But here's the exciting part. When the Wright brothers invented the aeroplane, there were no airports, and look at air infrastructure now. By choosing compostables, foodservice businesses can actively drive changes in UK recycling. The more compostables there are in use, the more we can work with the waste sector to extend collections UK-wide.



Composting methods & used Vegware packaging

Type of facility	Food waste recycling facilities	Garden waste composting facilities
Process	In-vessel composting (IVC) and some anaerobic digestion (AD) facilities with a composting phase	Open windrow composting (OAW)
Suitable Vegware items	 Vegware's full range of plant- based compostable foodservice disposables 	 All Vegware hot cups – single and double wall All CPLA hot cup lids – black and white Clear PLA cold cups and lids PLA-lined paper cold cups Wooden stirrers (pure untreated wood, so no certification required) Vegware's compostability certificates for these products are available on request
Client usage	 Any food or drink, including animal by-products such as eggs, meat or bones 	Strictly DRINKS ONLY, with MILK or CREAM as the ONLY animal by-products
Collected in	Vegware's range of certified home compostable biobags	
Other allowable wastes	 Used coffee grounds and loose-leaf tea Tea bags and coffee capsules with a valid compostability certificate Garden waste can be processed at all composting facilities 	

Which bin should it go in if I can't compost it?

Vegware's compostable catering disposables are designed to biodegrade in under 12 weeks in commercial composting, which provides the perfect balance of microbes, moisture and warmth. Our Environmental team offer unparalleled support - see question 2, 'How can Vegware help clients find composting solutions?'.

Home composting conditions vary with the skill of the householder, so we don't make any claims there, but there have been successful trials using hot compost bins. Where there is no access to industrial composting facilities, used Vegware should be put in general waste. Vegware's takeaway packaging is made from plants, using lower carbon, renewable, reclaimed or recycled materials, and these sustainability benefits still apply no matter what happens to them after use.

- Used Vegware should not be placed in standard recycling bins which collect paper, plastics and metals, as those materials go to a different type of sorting facility. Another reason is that food waste harms the quality of mechanical recycling - the same applies to any used foodservice disposables.
- General waste goes to either incineration or landfill.
 If Vegware is incinerated, energy is produced.
 Incineration studies from NatureWorks, a key materials supplier of ours, show that their PLA bioplastic produces more heat than newspaper, wood or food waste; also that it produces no volatile gases and leaves little residue. Some in the waste sector prefer plant-based materials over conventional plastics as they give off fewer toxic gases.
- In landfill, studies have shown that compostable packaging is inert and does not give off methane.
- Please do not litter compostable packaging is not expected to break down when discarded in the environment, and is not a solution to marine pollution.

Can food waste composting facilities accept used Vegware?

As you read this, there are industrial composting facilities all around the UK processing used Vegware. Since 2012, our environmental team has been working with composters to set up trials to make sure it works in practice. In-vessel composting (IVC) is the main process suited to composting our products, as well some anaerobic digestion (AD) plants with a composting phase. We now work with over a third of the UK's 53 suitable in-vessel composting facilities, and are actively engaging with the waste sector to overcome any barriers.

Can garden waste composting facilities accept used Vegware?

Since July 2018, garden waste composting facilities (using open windrow composting) are officially allowed to consider processing certified compostable drinks cups and lids with milk or cream residues - read our detailed blog post. This DOESN'T mean that Vegware cups can go in garden waste bins starting today. It means that Vegware's Environmental team can now engage with the UK's 100+ garden waste composters and collectors, to see if we can work together to create more composting routes for drinks-only waste. We will announce good news region by region, wherever businesses and householders can start putting Vegware cups and lids in their garden waste bins. This development was a Vegware initiative together with REA's Organics Recycling Group and various government agencies.

What about composting collections?

Compostables are still relative newcomers compared to other materials, so trade collections aren't available everywhere in the UK, but Vegware is actively changing that. We partner with the waste sector in many-UK regions, and we have now launched our own composting collections, Close the Loop. We have near-national coverage for Scotland, now also cover Bristol, Gloucester and Worcester, and are working on launching in other regions.



Is Vegware suitable for on-site composting?

Where collections aren't possible, some on-site composting systems can process used Vegware with food waste. At Dundee and Angus College, for example, the compost produced on site is used in the College gardens by horticulture students - find out more in this short film case study (youtu.be/5WsHsLrwXJA). If your site has some outside space and would be interested in discussing options, just get in touch.

Where is it easiest to capture used compostables?

Vegware's main clients are contract caterers who operate cafés and restaurants in universities, office buildings or zoos. In enclosed sites like these and at events, used Vegware can be captured within the site's bins, which allows us to work with their waste teams to set up composting schemes. Cup recycling schemes are making huge strides; ours is a solution for all disposables and food waste, not just cups.

Why is education so important?

We've had in-house recycling experts for six years now, working closely with the waste sector and helping our foodservice clients set up composting schemes. A key part of the switch-over is education and behaviour change, creating clear bin signage and training everyone involved – from customers to catering managers and waste operatives. The last thing we want is to send contaminated waste to composting facilities. So education is very important, and it's something we take seriously here at Vegware.

What about on-the-go?

Compostables face exactly the same issue as *all* disposables on-the-go: how to capture it once it's walked out the door? Some of our clients offer loyalty cards rewarding bring-back. Cafés with a composting scheme for used Vegware can choose to join our new initiative, the <u>Composting Collective</u>, a bring-back scheme to capture used Vegware that tackles the issue of on-the-go recycling.

Schemes collecting any on-the-go recycling (including plastic-lined cups), depend on consumers finding the right bin, and not accidentally contaminating it with the wrong materials. The right 'binfrastructure' is needed, but those bins need to be used correctly. That means clear messaging and consumer education is vital to make sure what is collected is good enough to be recycled.

The thing is, exactly the same challenges (binfrastructure + behaviour) apply to all recycling – whether that's plastic-lined cups, plastic bottles, or compostable disposables. Compostables are not the enemy. We're fighting the same challenges, with the same goal: better recycling.



There's a major opportunity for change in foodservice recycling right now.

Compostables are the only practical solution for food-contaminated disposables. The more businesses that go compostable, the faster we can achieve this much-needed change.

