

Answers to the BIG questions



What are disposable takeaway cups made from?



There are three main types of disposable cup – paper, plastic and foam.

The confusing part for us as consumers is that we hear paper and plastic used interchangeably when referring to takeaway cups – we'll explore why next.

And if you're in the catering business, own a coffee shop or manage facilities... you've got a lot to choose from!

■ The Traditional Foam Cup

Made from petroleum, polystyrene foam cups are used for hot and cold drinks. Polystyrene makes the cup sturdy and lightweight while providing a high level of insulation.

However, if you're looking for an environmentally friendly cup solution then you should avoid using these cups altogether. Very few recycling plants have the technology to process single-use polystyrene foam cups (including used polystyrene foam food containers) and it is estimated that it takes hundreds of years to decompose in landfill and then it only breaks down into smaller particles.

■ Types of Plastic Cup

As well as a takeaway solution, cold drinks tend to be served in plastic cups at large public events and outdoor venues.

These cups are generally manufactured with polystyrene plastic, recyclable PET (polyethylene terephthalate) plastic or recyclable PP (polypropylene). Compostable cold cups made with PLA (polylactic acid) corn plastic are also available.



■ Types of Paper Cup

Paper cups, also referred to as 'paper hot cups' are more commonly used for takeaway coffee and hot drinks today. Although they can be used to serve cold drinks too.

Air Pocket Insulated Cups:

Air is trapped for improved insulation between an inner and an outer ridged layer.

Poly-coated Paper Cups:

Features a polymer coating for additional insulation, while protecting the outside of the cup from weakening.

Post-consumer Paper Cups:

Made using a high percentage of recycled paper and therefore using less virgin material.

Sustainable Paper Cups:

Compostable and biodegradable cups. The whole cup is produced with natural renewable resources.

Wax Coated Paper – Paper Cold Cups:

For cold takeaway drinks, the wax coated paper cup offers extra rigidity and protection from leaks.

The Bottom Liner...

Whether you are using a paper cup for a hot or a cold drink, all paper cups feature a lining inside them to prevent liquid from leaking through the paper layers, while helping the cup retain its rigid form.

This is where a polymer (plastic) or a wax lining may be used.

Common linings include PE (polyethylene) plastic, PLA (polylactic acid) bioplastic and paraffin wax.

It's the cup lining and how they are bonded to the inside of the cup which really makes the difference when it comes to the ease with which takeaway cups can be recycled or disposed of in an environmentally friendly way.



So, can you recycle 'to-go' cups?

Yes – the paper hot cups with a PE lining, which are widely used by coffee chains, can be recycled.

YES

There has been challenges along the way, but the good news is that more waste management operators, manufacturers, retailers and specialist recycling plants are now working together in countries around the world, investing in the disposal, collection and reprocessing infrastructure needed to offer this facility.



Overcoming the Challenges



Due to PE lined paper cups needing to be recycled through a specialist plant process (to separate the paper from the lining), the limited facilities available and lack of collection infrastructure has meant that in recent years the recycling market's own demand for disposable cups has been low.

However, a look around the world shows us that change is happening with increased innovation and investment in the recycling infrastructure to cut unnecessary cup waste.

- **In the UK.**
2.5 billion disposable cups are used in the UK each year. Following substantial investment from retailers in the form of subsidies to the UK's main waste collection companies, the plants with the capability to recycle the cups – DS Smith, James Cropper and ACE UK, have recently stated that with an improved cup collection infrastructure, they alone could sustainably manage the recycling of all of the UK's disposable paper cups.
- **In France.**
4.73 billion single-use cups are thrown away per year, according to the French Association of Health and Environment, ASEF. Now looking towards their complete ban on disposable cups, cutlery and plates which comes into force in 2020, consumers in France will be receiving their coffee 'to-go' in cups made from at least 50% biologically-sourced materials and which are compostable.
- **In Australia.**
Around 1 billion disposable cups are used in Australia each year. Larger coffee chains are working together with recyclers such as Simply Cups introducing cup recycling programmes, with the install of cup bins in malls where consumers can deposit their used disposable cups.
- **In Canada.**
14 billion cups of coffee are consumed in Canada every year, and 35% of coffee is consumed "to-go". Under Canada's Extended Producer Responsibility (EPR) programs, the country's largest fast food brands are required to fund residential curbside recycling schemes which accept disposable coffee cups. However, the issue remains where cups are disposed of away from home and being disposed as litter. Therefore, they are also exploring the introduction of deposit schemes to boost the volume of cups being returned into the recycling system.

Recycle-friendly Disposal

Although made with paper, disposable cups cannot be disposed of in a general paper recycling bin at home, work or anywhere else.

This is due to:

- 1 the PE plastic lining inside the cup
- 2 the waste liquid and residue in the cup which contaminates the other paper
- 3 the fact that once the cups are co-mingled with other recyclable and non-recyclable waste streams, they are difficult for processors to isolate and are often too damaged to recover

Therefore, the **most efficient method of disposal**, to give us the best chance of improving the recycling rates of the cups, is to empty out any cup waste (including liquid, apple cores, crisp packets) and then collect the cups in a separate container away from other waste streams.

This is also the case with used 100% compostable paper cups.

[Go to Part 2 for more about Recycling Disposable Paper Cups.](#)

