



THE WHAT, WHY & HOW
**OF 'TO-GO' CUP
RECYCLING**

INTRODUCTION

Confused about cup recycling? Can you even recycle takeaway cups?

It is estimated that a staggering 58 billion disposable coffee cups are used worldwide each year.

Where do they all go?

We've compiled this eBook to answer your questions, along with insights into industry developments and the consumer initiatives available to help you take action right now.

So, whether you're a socially conscious coffee lover or a business that wants to do more to divert cup waste away from landfill, we hope you'll find something recyclable to take away from us today.

Who are we? We are Glasdon. An established manufacturer with our design eye set firmly on helping improve the environment.

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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.](#)



Recycling Disposable Paper Cups



HAPPY
MONDAY



Our love for the bean is evident around the world.

An estimated 3.5 billion cups of coffee are consumed worldwide every day. While the production of coffee in 2018/19 in just Mexico is projected to increase by 2.2 million sacks up to 4.5 million sacks, since 2016.

With an estimated 58 billion disposable coffee cups used worldwide each year, the demand is not going away anytime soon.

So, what can we as consumers do to help the situation?

And how are coffee chains and businesses supporting the drive to reduce disposable cup waste and increase cup recycling?

There are actions you can take today...

Choose Your Vessel

The choices we all make are undoubtedly critical to reducing the sheer volume of disposable cups we send to landfill.

Takeaway Drinks Vendors

The sourcing of recyclable or compostable takeaway cups is a top priority for many vendors and retailers now.

Polystyrene plastic and foam cups are being replaced with recyclable PP and PET or compostable PLA plastic cups for cold drinks.

While for hot drinks, the favoured replacements are paper hot cups with a PE lining which can be recycled or with a PLA lining which can be commercially composted.

Retailers are improving their green credentials further by offering reusable cups.

Then what?

[Refer to Part 3 for our Practical Guide to Cup Recycling.](#)

Consumers

If you're not sitting in with your drink, look out for takeaway vendors who are working hard to consider the environment.

Ask questions about the cup you are about to receive. Can it be re-used, recycled or composted? What do they need you to do to help?

#MySocialSpirit





Cup Recycling in Action



From cup manufacturers through to reprocessing plants, new innovations and initiatives are

emerging at every stage to reduce the number of disposable cups going to landfill.

Manufacturers

Re-design of disposable cups to improve ease of recycling

Packaging companies such as Frugalpak are leading the charge in the manufacture of recyclable paper cups, specifically designing cups made from recycled cardboard and featuring an easy to separate liner.

It is suggested that with separate cup disposal and collection methods available, these cups could also be recycled in general paper mills as well as the existing specialist recycling plants.

Increase use of 100% recyclable or compostable materials

Alternatively, food service packaging manufacturers Vegware are producing cups made entirely from plant-based materials which can biodegrade in under 12 weeks in commercial composting facilities.

Cup Recycling Bins and Cup Collection Containers

Working in partnership with supply chain and waste collection companies, UK bin manufacturers such as Glasdon now offer purposely designed cup bins with individual compartments for liquid waste, plastic lids and collection tubes to collect the disposable cups separately.





Supply Chain and Consumer Initiatives

Sourcing Cup Stocks

Many coffee chains and smaller independents are sourcing their cups more responsibly, which in turn reduces the volume of virgin resources required to produce the cups. Starbucks and McDonald's are investing in the development of a sustainable cup made from materials that are recyclable, compostable or both. While Starbucks currently only offer single-walled cups with a 100% recycled and recyclable cup sleeve.

In-store Return and Cup Recycling Schemes

Coffee chains including Costa and Tim Hortons have worked with waste management companies to launch cup recycling schemes in their stores.

Even with an evolving infrastructure, in-store return and recycle schemes are a simple solution with the miniscule inconvenience of holding on to your cup for a little longer.

Latte Levy

In the same way charges for plastic carrier bags have been introduced in some countries to make us stop, think and re-use – proposed extra charge for paper cups are also being considered to be the catalyst that will also nudge to-go consumer behaviour.

Reusable Rewards Schemes

The big coffee chains also offer discounts and other reward cards with stamps when you use a reusable cup.

Workplace Drives

More and more organisations are introducing cup recycling bins and collection stations in the workplace, which makes total sense when you think about how many of us pick up a coffee on the way to work.

Does your workplace offer this facility now? We look at workplace cup recycling initiatives and how to introduce one in Part 3.



Collection Services

Improvements to the Binfrasturcture

More waste management companies are now offering dedicated cup collection services for local authorities and businesses.

Reprocessing Plants



Fibre Recovery and Polymerisation

During the process of fibre recovery, the paper and the polymer lining are separated, the cups are pulped and the floating polyethylene is skimmed off and separated from the denser paper fibre.

Through the process of polymerisation, new polymers derived from used paper cups are also being developed which can then be used in the manufacture of other products.

[Turn to Part 3 for a practical guide to introducing cup recycling programmes.](#)

Practical Guide to Recycling Cups in the Workplace





Even when your main business activity isn't selling coffee, you can guarantee that disposable cups have been making their way into your offices and business premises!

As individuals we're more switched on now to what we need to do, but what new processes and recycling programmes can we adopt in the workplace to support businesses in their 'zero waste to landfill' missions?

Introducing cup recycling into the workplace has many benefits including cost savings on your landfill waste disposal.

Cup Recycling Facts

by Glasdon



 <p>58 billion disposable coffee cups used worldwide each year</p>	 <p>In 2018 3.5 Billion cups of coffee consumed worldwide every day!</p>
 <p>88% of the nation would use a purpose-built cup recycling bin</p>	 <p>PE Lined Paper Cups CAN BE RECYCLED</p>
 <p>replacing all Styrofoam Cups with Recyclable Paper Cups by 2020</p>	 <p>52% of consumers dispose of their coffee cup at work</p>
<p>Paper Cups Should NOT Be Disposed of in a Paper Recycling Bin</p> 	<p>Recycling Cups can SAVE your organisation £s</p> 

Large retailers are introducing Cup Recycling Schemes into their stores:



Step 1: The Waste Audit

If you're in a facilities management, operations or a general management role you will be more than familiar with the waste management audit.

Establishing the need for action and the type of action required is the first step towards implementing an efficient waste management programme.

If you work in facilities where single-use cups are used or where colleagues bring them into the workplace, you may have already identified the potential for a cup recycling programme.

A waste audit focused on quantifying the volume of disposable cups passing through the organisation will help to identify the type of solution required by indicating;

- the capacity of the collection container and number of containers needed,
- where the cup collection points should be positioned for optimum usage;
- and the collection service requirements.

Don't forget – if the majority of single-use cups on your site are generated through in-house takeaway facilities, you will need to also review the type of cups being used. Is there room for improvement to switch to a recyclable or biodegradable/compostable alternative?

[Go to Part 1 for info.](#)

*Need advice or assistance with your waste audit?
Free no obligation help is available here.*

Step 2: Identifying a Cup Collection Service

The next step is to talk to your existing waste management contractor (WMC) about the type of service they offer.

If your WMC does not offer a cup collection service right now is this something they will be looking into in the future?



Your chosen WMC will advise on how they will collect the cups from you. Some companies will provide biodegradable sacks or boxes for you to transfer the cups into ensuring that when they are emptied out of the cup bin they remain stored away from other waste streams to avoid any cross contamination.

Step 3: Finding the Right Solution

Cup Recycling Bin, Collection Stacker or Recycling Station?

The most effective way to recycle used disposable paper cups is to ensure they are emptied and disposed of into a separate container away from other waste.

Industry leaders - Veolia, recommend solutions which can incorporate a 'tip, flip and stack' method of disposal, whereby any remaining liquid or other contaminant can be tipped away or removed into a separate container, the cup can be flipped over and stacked neatly upside down to aid further drying.

Look for solutions that are specifically designed for the appropriate application or location:

- Compact solutions such as the [Eco Nexus® Cup Recycling Station](#) for front of house or areas of high footfall and communal areas

- Wall mounted collection tubes such as the [Centrum™ Cup Stacker](#) for back of house or kitchen collection

Will you require:

- Dedicated cup recycling bins and stations to take a higher volume of cups?
- Or a space-saving multi-purpose recycling solution that will take cups, but also features compartments for other types of waste?

The initial waste audit should also be of assistance in identifying the capacity of container and the floorspace available.

And if you are not sure or can't find what you need, we can tailor solutions to your requirements. Talk to us today.

Step 4: Maximise Usage

Positioning

The audit will also help you identify where your cup recycling containers should be located, internally and externally, for maximum visibility and accessibility to maximise their usage.

Car parks, entrance halls, reception areas, main corridors and communal kitchen facilities are all popular locations for frequent disposal.

Communication is Key

Think about how you will ensure employees, customers and visitors know about your cup recycling programme and how to dispose of their cup in the correct bins.

Launch your programme through internal communication channels such as email, intranet, information boards, payslips, newsletters and posters.

Use your launch communications as a way of sharing knowledge about the importance of recycling paper cups and also how it helps the organisation achieve its environmental goals.

Indicate where your cup bins are stationed and explain how the key to improving the recycling rates of cups is in the way they are disposed of separately to other waste.

Clear signage around the bins will also help boost internal awareness of your programme. With disposable cup bins and recycling stations by Glasdon you also have the option to add standard signage and graphics or to design your own through our Personalisation Service.

Don't just limit your communications to inside the organisation. Shout about your efforts through press releases to local media, blog posts on your organisation's website and through your social media profiles.

Step 5: Emptying and Sorting

The frequency in which emptying is required will depend on the volume of cups you expect to collect. It may take a short period of time to assess and adjust routines to the best times of emptying for your organisation.





Step 6: Explore other Opportunities

Partnerships

If you're a small business or the volume of takeaway cups being disposed of in your organisation is low and a workplace scheme isn't deemed viable, you can still take action to divert the cups away from landfill.

Why not join forces with other businesses nearby and create a collaborative cup recycling programme sharing collection points, emptying schedules and contractor costs.

If the cups that end up in your offices, can be pinpointed back to one or two of the team's favourite coffee shops – talk to them about how together you can improve the recycling of the cups. They may already be providing it!

*Looking to introduce a workplace cup recycling scheme?
We can help.
Talk to us online today.*



CONCLUSION

The cup recycling infrastructure is growing. What changes will you or your organisation make today that will benefit tomorrow?

As manufacturers, suppliers, consumers, waste contractors and re-processors we all have a part to play in stopping disposable cups from needlessly being sent to landfill.

The means to do this are here, so let's get started.

#MySocialSpirit

This eBook was brought to you by Glasdon.

We are an established manufacturer with over 50 years' experience designing products that help to improve all of our environments.



www.glasdon.com

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