UNWRAPPING PLASTIC

Understanding disposables in hospitality

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What's inside this guide

The plastic problem

Plastic plays a crucial role in the day to day operation of most food service businesses. Right now the sector is facing an unprecedented level of awareness and pressure over its environmental impact. Call it the Attenborough effect, or just a long time coming, but the tide is turning and the public is demanding change when it comes to single-use plastic.

Tackling plastic use in your business can be a confusing and frustrating task. With so many types of plastic to cope with, and an ever increasing number of confusing 'environmentally friendly' alternatives coming to market, knowing how and where to start, and what answers are the best answers, is easier said than done.

Let's be clear, plastic can be essential. It has saved lives in hospitals and enabled much of the technology we use in daily life. Within restaurants it has played a valuable role in improving food safety and reducing waste. We are not setting out to vilify all plastic. Instead this resource is built to help you navigate the journey to becoming plastic responsible. We want to support the food industry to make good decisions - not knee-jerk reactions - by asking the right questions, gaining reliable knowledge and using tools to help take action.

There are two huge issues at the root of our single use plastic problem: plastics that can't be recycled, and plastics that could be but aren't currently. This opens the door to the bigger issue in all waste management - what is happening to our waste? Making a responsible decision requires an understanding of the full lifecycle of any material, and the gritty reality of what is actually happening. An optimistic view of what could happen will not suffice.

Most importantly, don't forget the waste hierarchy: reduce, reuse, recycle. When considering any switch, begin by assessing whether or not the item is truly necessary. Could it be removed? Or if not removed entirely, could you reduce the volume? What about switching to a reusable option - how would that impact your operations?

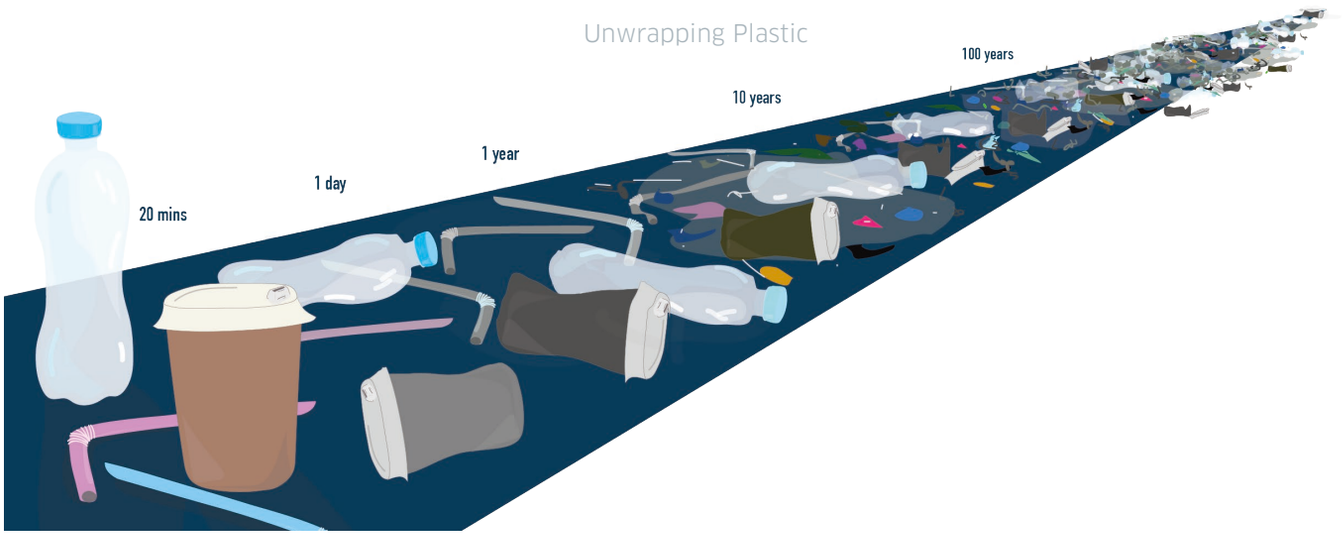
This resource is meant to be a simple guide to asking the right questions, getting good information and ultimately making choices that are good for both your business and for the planet. It includes a glossary of terms to make sense of all of the confusing vocabulary; a behaviour matrix to help you put one foot in front of the other; a set of questions to ask your waste contractor to understand exactly where your waste is going, and a digital tool for auditing your packaging use.

And finally, the bulk of the resource is a simple guide to understanding your options when it comes to six of the core offenders: straws, bottles, coffee cups, takeaway packaging, cutlery and cling film.

Alongside this toolkit, you will also find a digital presentation on the Food Made Good community which will help you contextualise the issue and think more broadly about your decision-making framework.

A step-by-step guide to phasing out disposables

	STEP 1	STEP 2	STEP 3	STEP 4
COFFEE CUPS	Audit your business to understand your current practices by asking: What is being used? Where? At what volume? By whom?	Ask your suppliers for packaging specifications to understand exactly what you are receiving and how much. Collate this information in the *Self-Audit spreadsheet* (page 14).	Identify where you can remove non-essential plastic. Set reduction targets and devise operational changes.	Send your waste contractor your collated packaging spreadsheet to understand what materials they are able and unable to process.
DRINK BOTTLES				
STRAWS				
TAKEAWAY				
OTHERS				



STEP 5	STEP 6	STEP 7	STEP 8
Provide each team member with a reusable cup. Introduce branded reusables for customers.	Add a levy for cups or offer a discount to incentivise customers to bring a reusable cup.	Contact a coffee cup recycling company to show demand in your area.	If coffee cups are recycled, clearly communicate to customers how and where they recycle. Clearly label recycling bins.
Provide each team member with a reusable bottle and access to refill	Offer tap water to customers first.	Explore installing a water filtration system.	If you must have bottles, explore glass or recycled plastic.
Review which drinks, if any, really need straws	Train staff to give out straws only when necessary.	Switch to paper straws.	*Keep in mind, some customers may need a straw with a 'flex', so we advise having some in stock.*
Switch to wooden or recyclable cutlery.	Ask customers if they need cutlery.	Ensure all packaging is widely recyclable at home or on-site.	Introduce reusable containers such as tiffin tins.
Train staff on what can be recycled, where and why/ to use workplace resources, such as cling film and blue roll, efficiently or how to use alternatives (e.g. reusable storage containers).	Order in bulk to reduce packaging waste where possible.	Use refillable condiment bottles for customers eating in.	Ensure supplier packaging is returned and recycled.

Coffee Cups

Material	Card	Plastic liner	PLA Liner (bioplastic)
What is it made of?	Paper	Plastic derived from crude oil	Renewable organic matter such as corn starch or vegetable fat.
Which bin?	If clean, dry mixed recycling. If unclean, general waste.	Coffee cup bins, dry mixed recycling in some areas.	Food waste (commercial composting only)
The reality of where it ends up	Mainly landfill or WtE (but recycling rates are increasing).		Separated and sent to landfill or WtE
Things to consider	Installing a cup-only bin for the public to use.		It's highly unlikely that customers will have access to a commercial composting bin, and bioplastics contaminate traditional recycling streams, therefore the only real option is general waste.

Coffee Cup Lids

Foamed polystyrene (expanded)
Plastic derived from crude oil
General waste
Landfill or WtE
Economically unviable to recycle. Avoid at all costs.

FOAMED vs. UNFOAMED POLYSTYRENE

In the UK, 'polystyrene' is used to describe both foamed and unfoamed polystyrene. We most commonly use it as a shorthand when talking about the foamed or expanded variety (used to package sensitive foods or fragile objects). However, the recycling industry officially recognises 'polystyrene' as the unfoamed material used to make disposable cutlery and lids and identifies it with recycling number '6' and the letters 'PS'.

Material	Unfoamed Polystyrene (not expanded)	CPLA (heat resistant PLA)
What is it made of?	Plastic derived from crude oil	Renewable organic matter, such as corn starch or vegetable fat
Which bin?	Dry mixed recycling	Food waste (commercial composting only)
The reality of where it ends up	Likely separated out of recycling, check with waste contractor.	Separated and sent to landfill or WtE
Things to consider	Non-expanded polystyrene is recyclable.	Composters are currently unable to distinguish PET and PLA and so most PLA is removed from the food waste and sent to landfill or WtE plants. PLAs do not degrade under anaerobic conditions, meaning that they cannot be sent to Anaerobic Digestion. Look for certifications: EU 13432 (EU standard, best globally) or ASTM D6400 (US standard, less stringent). Initial life-cycle analysis suggests a carbon footprint 80% lower than similar PET products.

Bottles

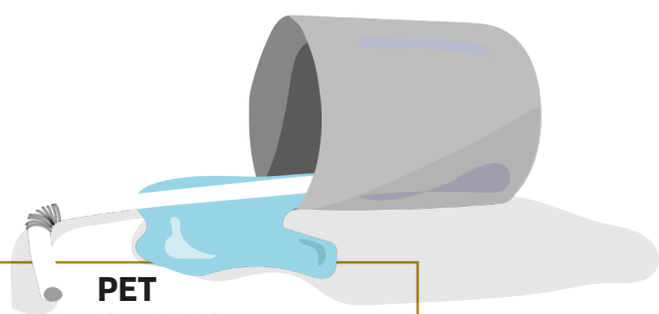
Material	PET	RPET	Aluminium
What is it made of?	Plastic derived from crude oil	Recycled PET plastic	Virgin or recycled aluminium
Which bin?	Dry mixed recycling		
The reality of where it ends up	Widely recycled		
Things to consider	PET can be easily and cheaply recycled into RPET.	RPET can vary in recycled content. High recycled content RPET can be lower in quality or include discolouration. A lower content RPET is still better than virgin PET, and it can be further recycled.	Widely recycled. Recycling aluminium requires 5% of the energy required to manufacture virgin aluminum.

Straws

Material	PET	RPET	PLA
What is it made of?	Plastic derived from crude oil	Plastic derived from 1%-100% recycled PET	Renewable organic matter such as corn starch or vegetable fat.
Which bin?	Dry mixed recycling		General waste unless commercial composting is available for food waste.
The reality of where it ends up	Can be recycled, but mostly ends up as general waste, litter or in the worst case, in our oceans.		Landfill or WtE
Things to consider	If using plastic straws, consider messaging to consumers regarding recycling as PET can be easily and cheaply recycled into RPET.		Composters are currently unable to distinguish PET and PLA, so most PLA is removed from food waste and sent to landfill or Waste-to-energy (WtE) plants. PLA does not degrade under anaerobic conditions, meaning that it cannot be sent to anaerobic digestion. Look for certification: EU 13431 (EU standard is the best globally) or ASTM D6400 (US standard, less stringent.

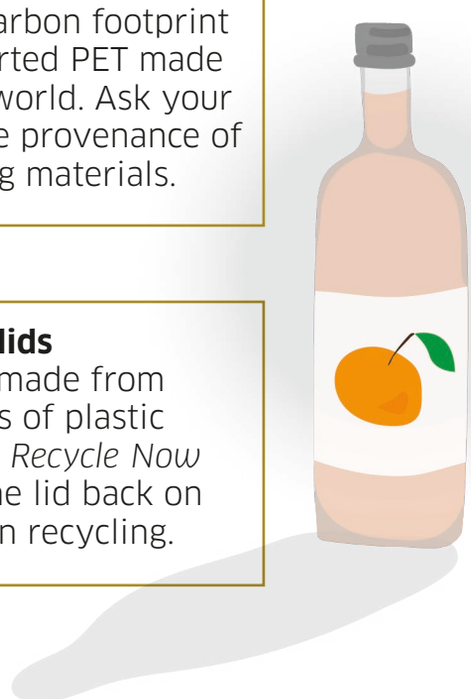
Carton (Tetra Pak)	Glass	PLA
Layers of cardboard, aluminium and plastic	Sand or recycled glass	Renewable organic matter such as corn starch or vegetable fat
Depends on waste contractor. May need specialist recycling.	Glass, dry mixed recycling	General waste
92% of UK local authorities offer tetra pak collection, but most consumers will either confuse with general dry mixed recycling or throw in general waste.	Widely recycled	Separated and sent to landfill or WtE
Whilst the cartons may be recyclable, Tetra Pak cannot be made with recycled material.	If possible, it's best to have a separate glass collection.	Composters are currently unable to distinguish PET and PLA, so most PLA is removed from food waste and sent to landfill or WtE plants. PLA does not degrade under anaerobic conditions, meaning that it cannot be sent to anaerobic digestion. Look for certification: EU 13431 (EU standard is the best globally) or ASTM D6400 (US standard, less stringent).

Paper
Trees and grasses
General waste
Landfill or WtE
Always look for FSC (Forestry Stewardship Council) certification. Used straws will be too contaminated to be recycled. The benefit of a paper straw is that if it ends up as litter it will biodegrade.



PET

PET made in the UK has a considerably lower carbon footprint than cheap, imported PET made elsewhere in the world. Ask your suppliers about the provenance of their packaging materials.



Bottle lids

Lids could be made from different types of plastic (HDPE) or metal. *Recycle Now* advises to put the lid back on the bottle when recycling.

Takeaway packaging

Material	Lined Card	PET	RPET
What is it made of?	Paper and plastic	Plastic derived from crude oil	1% - 100% recycled PET
Which bin?	Dry mixed recycling or general waste (if heavily contaminated)		
The reality of where it ends up	If contaminated, this will be separated and sent to landfill or incineration.	If rinsed this will be recycled. If heavily contaminated with food, packaging will be separated and sent to landfill or WtE.	
Things to consider	Some recycling facilities cannot separate the plastic lining, meaning that even if clean it will be sent to landfill or WtE.	PET can be recycled into RPET if not heavily contaminated with food. Include messaging to encourage customers to rinse and recycle.	Include messaging to encourage customers to rinse and recycle.

Bioplastic liner	Expanded Polystyrene	Bagasse	NatureFlex
Renewable organic matter such as corn starch or vegetable fat	Plastic derived from crude oil	Sugar cane	Derived from renewable wood pulp
Food waste (commercial composting only)	Dry mixed recycling / General Waste	Food waste (commercial composting only)	Check with your waste contractor. Food waste, anaerobic digestion, commercial composting and home composting.
Indistinguishable from PET. Separated and sent to landfill or WtE.	Landfill or WtE	Separated and sent to landfill or WtE	Separated and sent to landfill or WtE
Composters are currently unable to distinguish PET and PLA, so most PLA is removed from food waste and sent to landfill or Waste-to-energy (WtE) plants. PLA does not degrade under anaerobic conditions, meaning that they cannot be sent to anaerobic digestion. Look for certification: EU 13431 (EU standard is the best globally) or ASTM D6400 (US standard, less stringent.	Economically impossible to recycle. Avoid at all costs.	Bagasse is difficult to distinguish from expanded polystyrene, which means that bagasse is often removed from food waste and sent to landfill or WtE.	NatureFlex™ films are fully certified to the American (ASTM D6400) and European (EN13432) norms for 100% compostable packaging. Proven to be suitable for home composting, they are also marine degradable.

Cutlery & Chopsticks

Material	Polystyrene (not expanded)	Wood
What is it made of?	Plastic derived from crude oil	Often beech
Which bin?	Dry mixed recycling	Food waste (commercial composting only)
The reality of where it ends up	Likely separated out of recycling, check with waste contractor.	Most composting facilities will accept wooden cutlery as long as it is untreated.
Things to consider	Non-expanded polystyrene is recyclable.	May be sprayed with a resin which will reduce degradability. Look for FSC certification.

Bamboo	PLA
Mostly produced in China	Renewable organic matter such as corn starch or vegetable fat
Food waste (commercial composting only)	General waste
Most composting facilities will accept wooden cutlery as long as it is untreated.	Separated and sent to landfill or WtE
Bamboo is incredibly fast growing. May be sprayed with a resin which will reduce degradability. Look for FSC certification.	Composters are currently unable to distinguish PET and PLA, so most PLA is removed from food waste and sent to landfill or WtE plants. PLA does not degrade under anaerobic conditions, meaning that it cannot be sent to anaerobic digestion. Look for certification: EU 13431 (EU standard is the best globally) or ASTM D6400 (US standard, less stringent).

Cling film

Material	PPVC / PVDC (regular cling film)	Beeswax wrap
What is it made of?	Derived from crude oil. Regular cling film allows permeability to water vapour and oxygen, extending the duration of peak freshness.	Made from cotton and beeswax, they are a reusable, washable, scrunchable beeswax wrap that seals around food with a quick hand-hug.
Which bin?	General waste	Food waste, or cotton recycling if washed before being discarded.
The reality of where it ends up	Landfill or WtE	If the wax is washed off, the cotton can be sent for textile recycling.
Things to consider	Will almost always be sent to landfill or for incineration.	Ask your linen supplier if they can recycle the cotton.

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This is an abridged version of
Unwrapping Plastic:
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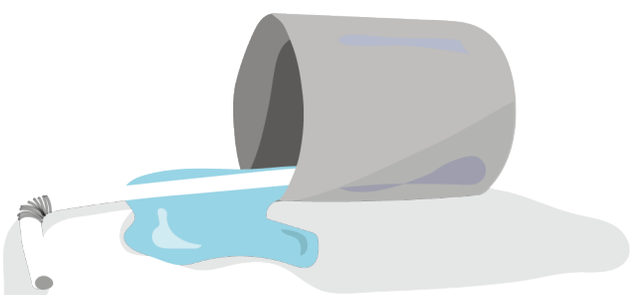
For more information on how to join the Sustainable Restaurant Association and for access to the complete resource please contact hello@thesra.org



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