

Plastic recycling facts:



There are two main types of plastic, **thermoset** and **thermoplastic**.

Thermoplastics are plastics that can be re-melted and remoulded into new products, and therefore, recycled. These plastics are made from polymers/long chains of atoms. Each time they are recycled, the polymer chains shorten, these plastics can generally be recycled 2-3 times before their quality degrades to the point they cannot be recycled. In addition, each time these plastics are recycled, their strength weakens and sometimes virgin plastic is added to off-set the shortened polymers and add strength.

Thermoset plastics contain polymers that cross-link to form an irreversible chemical bond, no matter how much heat you apply, they cannot be remelted into new material and are generally non-recyclable. Items such as drain pipes, mobile phones and children's toys are manufactured from Thermoset plastic and these cannot easily be recycled. Recycling these items is a specialised process.

Once collected and delivered to EnviroSort, plastic bottles, tubs, trays, punnets and pots are separated from your recycling by an **Optical Sorter** Machine. Optical sorters use beams of light to identify plastics, which reflect the light back to the machine, which blows the identified plastic onto a separate conveyor belt. They are then sorted by three more optical sorters into three separate types of plastic. Clear **PET** bottles (symbol 1 plastics); white **HDPE** (milk) bottles (symbol 2 plastics); and then all the other mixed plastics (bottles, pots, tubs, trays and punnets in any colour except black).

Last year, EnviroSort sent out 6,918 tonnes of recycled plastic. One tonne of recycled plastic saves 3,114 litres of oil and can save between 30% and 80% of CO₂ emissions.



What can't I recycle in kerbside collection and why?



Soft plastics *

No bread bags, plastic bags, Polyethene bags, film lids, cling film, bubble wrap, inner plastic packaging. Even if it's marked as being recyclable – we are unable to recycle it from kerbside collections. Soft plastics can clog our machines or may be mistaken for paper by the machines.

If you have a meat tray or a fruit punnet with a film lid, the film lid cannot be included in your green bin.

Crisp packets/food pouches *

Crisp packets are made from several thin layers of plastic compressed together.

Crisp packets, food pouches as well as bread bags, plastic bags and film lids can be recycled via a supermarkets soft plastics collection.

Black plastic *

Black absorbs the light. So black plastic cannot be detected by our Optical Sorters.

Black plastic was commonly used as it was a cheaper plastic made up of bits of other plastics of all colours, then dyed black to hide all the imperfections.

Hard plastics *

e.g. drain pipes, children's toys, garden containers, etc. These are made from Thermoset plastic. There are now toy recycling schemes available through Terracycle.

Make-up/sunscreen/lip gloss/mascara tubes, make up palettes, lipstick cases, roll-on/stick deodorants etc. *

These items cannot be placed in your green bin due to their size and/or the remaining product residue.

Many retailers now operate make-up recycling schemes.



Pump top plastic lids and trigger sprays etc. *

These contain metal so can't be recycled as they are mixed materials.

Toothpaste tubes, brushes etc. *

These contain aluminium on the inside so can't be recycled as they're mixed materials, and they are contaminated by any product residue. There are oral hygiene recycling schemes through Terracycle and some retailers.

Polystyrene/Styrofoam *

Recycling polystyrene/Styrofoam into its base form is a specialised process. It is also a fragile product as it easily breaks into pieces.

Cotton buds *

These are small enough to fall through the glass breaker and will contaminate the glass.

Disposable coffee cup lids *

These items are made from a hard polystyrene which cannot be recycled.

Plastic cutlery and straws *

These are designed to be single use and the shape and types of plastics used, make them unrecyclable.

Clothing *

Many clothes are now manufactured from recycled plastic. Plastics are melted down and spun into fine threads. However, once plastic has been turned into clothing, it cannot be recycled. Take it to a charity shop.

Even non-plastic clothing cannot be recycled from your green bin as it will block the machines. Take this to a charity shop.

*** All items unsuitable for the green bin which cannot be reused or recycled must be placed in your black bin.**

EnviroSort

Domestic green bin recycling across Herefordshire and Worcestershire

enquiries@severnwaste.co.uk



What can I recycle in my green bin?



Plastic bottles
Plastic tubs, including clean plastic take-away tubs
Plastic trays, including meat trays
Plastic pots, including plant pots if not black plastic
Plastic punnets, i.e. fruit and vegetable punnets

Any colour/s bottles, tubs, trays, pots and punnets except black

Did you know?

Whilst most commonly used plastics are made from crude oil, more plastics are now being manufactured from plant based and biodegradable materials? They are often referred to as bioplastic or bio-based plastic.

Whilst these plastics are manufactured from renewable sources, they cannot be included in the plastic recycling stream as they are made from other materials such as sugar cane or wheat, which, if mixed with conventional plastics made from petroleum, would be a major source of contamination.

Soft plastics, such as bread bags and film lids can be recycled via a supermarket's soft plastics collection. Supermarkets are unable to take any soft bio plastics.

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