



# How to sort waste

## Much more – and better – recycling





PAPIR &amp; PAP

When you dispose of paper and cardboard in your recycling bin, it does not matter if there are stickers or a little tape on them. However, it is important that paper and cardboard are clean and dry. Paper and cardboard are made of fibres that can be recycled as many as 10 times to produce new paper products - and each time the fibres are recycled we save resources: wood, energy, water and chemicals.

Initially, the fibres can be recycled to make white paper. In later cycles, e.g. after they have been used to make newspapers and contain print dye residues, the fibres can be used to make egg boxes or fruit trays. Finally, the fibres can be used to make construction and insulation materials.

## YES PLEASE ✓



Paper · Newspapers  
Junk mail · Envelopes



Cardboard · Cartons · Egg boxes  
Kitchen paper and toilet rolls



Magazines and journals  
(NB: remove plastic bags)

## YES PLEASE CARDBOARD PACKAGING IF THE FOOD IS WRAPPED IN PLASTIC

If you buy a frozen pizza packed in plastic foil and a carton, you may dispose of the empty carton in the section of your recycling bin that is reserved for paper and cardboard. Dispose of the plastic foil around the pizza in the section of your recycling bin that is reserved for plastic.

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## HOW WE RECYCLE PAPER AND CARDBOARD ...

 We collect it from you and deliver it to a waste sorting plant.

 Paper and cardboard are sorted at the waste sorting plant. It is pressed into bales. NB: It is important that paper and cardboard are clean and dry. We deliver the bales to a paper mill.



## RECYCLING FACTS

When you deliver cardboard for recycling, large cardboard boxes are not the only types of cardboard waste that make a difference. For example, if every household in Sønderborg Municipality disposed of their toilet and kitchen paper towel rolls in a recycling bin, we would collect 25 tons of cardboard each year.



**CARDBOARD ROLLS FROM SØNDERBORG FOR A WHOLE YEAR**

## NO THANKS ☹️

### SOILED PAPER AND CARDBOARD

If cardboard or paper is soiled or has been in direct contact with oily food, e.g. pizza, dispose of it in your general household waste bin.



### WET PAPER AND CARDBOARD

Dispose of wet paper and cardboard in your general household waste bin.

### HOW DO I DISPOSE OF WET AND DIRTY PAPER AND CARDBOARD?

AT HOME



### WHY MUST PAPER AND CARDBOARD BE CLEAN AND DRY?

Wet and dirty paper is a good breeding ground for fungal spores - and therefore a health risk for employees at waste sorting plant.

### BOOKS?

You can dispose of all kinds of books at the recycling depot. We will ensure that books are sorted and recycled responsibly.



AT THE RECYCLING DEPOT



BØGER

### GIFT WRAP?

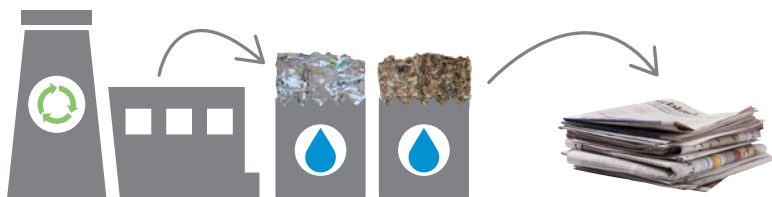
You can dispose of gift wrap in the section of your recycling bin that is reserved for paper and cardboard.



**NB:** Remove gift ribbon!

Gift ribbon is surprisingly strong. It can get jammed and damage the machinery at the waste sorting plant. Dispose of gift ribbon in your general household waste bin.

At the paper mill, the paper fibres are dissolved in water. Printing inks, tape, staples and clips, etc. are removed. Some of the paper pulp is bleached so that the fibres can be used to make recycled paper, and some is used to make cardboard, egg boxes or building materials.



### RESULTS:

In 2019, we collected **2,642 TONS OF PAPER** in our recycling bins.

This saved **22,000 TREES**



GLAS

Glass is an amazingly recyclable material. When melted down, almost all glass can be recycled to make new glass. This means there is absolutely no good reason to dispose of recyclable glass with general household waste. Glass cannot be incinerated and becomes part of slag, a residual product.

All sorted glass is melted down. Please dispose of whole and broken glass bottles and containers in your recycling bin.

If you paid a deposit on a bottle, it is best for the environment that you dispose of it in a return machine. The bottle will be washed and reused.

## YES PLEASE ✓



Glass packaging · Jam jars



Glass bottles · Wine bottles

## GLASS – HOW CLEAN?

You can dispose of glass packaging that is empty and free of food residues, e.g. jam. You do not have to wash the glass. However, if you wish to keep your recycling bin clean, you might like to rinse the glass with water. If your glass has a metal or plastic lid, the lid should of course be disposed of in the section of your recycling bin reserved for metal or plastic.

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## HOW WE RECYCLE GLASS ...



We collect glass and bottles from your home address and deliver them to a waste sorting plant.



At the glass recycling plant, glass is melted down and reused, e.g. to make new bottles, jam jars or windows.

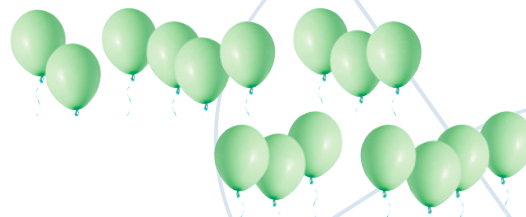




## RECYCLING FACTS

Every time you dispose of two jam jars in your recycling bin, you save the atmosphere for CO<sub>2</sub> corresponding to the CO<sub>2</sub> contained in 16 party balloons.

When we use recycled rather than new glass, we reduce CO<sub>2</sub> emissions by 400 kg per ton of glass.



## NO THANKS ☹️

### FLAT AND TOUGHENED GLASS

**FLAT GLASS** is panes of glass used in e.g. windows and picture frames.

**TOUGHENED GLASS** is used in drinking bottles, ovenproof dishes and decanters.

Flat and toughened glass is annealed at high temperature to make it stronger than ordinary glass. After annealing, flat and toughened glass will only melt at very high temperatures. Unfortunately, this means that it cannot be recycled with the glass we collect in our recycling bins.

### PORCELAIN & CERAMICS

Only very small amounts of porcelain or ceramic material can make large volumes of recyclable glass unsuitable for recycling. Porcelain and ceramics form small impurities in recycled glass.

When you dispose of toughened glass, porcelain and ceramics in the Porcelain & Sanitation Waste container at the recycling depot, it is crushed and used to make e.g. concrete. Don't forget that you can donate porcelain and ceramics to our second-hand shops or recycled building materials market - others may have a use for them!

### HOW DO I DISPOSE OF TOUGHENED GLASS AND PORCELAIN?

AT THE  
RECYCLING DEPOT



PORCELÆN  
& SANITET

SECOND-HAND  
SHOP



GENBRUG



At the glass recycling plant, glass is melted down and reused, e.g. to make new bottles, jam jars or windows.



### RESULTS:

In 2019, we collected  
**1,435 TONS  
OF GLASS**  
in our recycling bins.

This corresponds to  
**3 MILLION NEW GLASS BOTTLES**



METAL

Metals can be melted down and reused repeatedly in new products. When metals are smelted, they are heated to extremely high temperatures so that more or less every other material is burned to cinders.

It is therefore OK to dispose of e.g. a fork with a plastic handle, tea lights with candle wax residues and

cans with paper labels in the section of your recycling bin reserved for metals.

Metal extraction processes often require a great deal of energy and this is costly in CO2 accounting.

On the other hand, metal recycling emits much less CO2 - and that is good for the environment.

**YES PLEASE** ✓



Metal packaging · Cans Capsules  
Metal lids



Metal objects of all sizes · Pots & pans  
Tools · Cutlery

## METAL PACKAGING – HOW CLEAN?

Metal tins that contained e.g. tuna or mackerel, must be empty and scraped free of food residues before you dispose of them in your recycling bin. It is not necessary to rinse them in water - but it is a good idea to do this if you want to keep your recycling bin clean. Scrap any food residues into your food waste bag. The contents of food waste bags are used to make biogas.

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## HOW WE RECYCLE METALS ...



We collect metals at your home address and deliver them to a waste sorting plant.



Here, metals are washed and sorted. Then the metal is pressed into bales that are easy to transport to a metal recycling plant.



## RECYCLING FACTS

When you dispose of aluminium cans in your recycling bin, you save 95 % of the energy it would take to extract the same quantity of aluminium ore from the ground. In fact, for each aluminium can you recycle, we save the same amount of energy as a PC needs to operate for 8 hours.



## NO THANKS ☹️

### ELECTRONICS (WEEE)

Even though electronic devices often contain metal, they contain different types of metals and therefore have to be processed separately. When you dispose of electronics at the recycling depot or in your hazardous waste container, the many components will be reclaimed and reused e.g. to make new electronic products.



### HOW DO I DISPOSE OF ELECTRONIC DEVICES?

AT HOME



AT THE RECYCLING DEPOT



OR



### BATTERIES

Batteries often have a metal casing but they always contain substances that are harmful to the environment. A spent battery is always hazardous waste.

However, batteries also contain a large number of valuable raw materials. When you dispose of your batteries in your hazardous waste container or at the recycling depot, we make sure that all the raw materials are reclaimed and recycled to make new products.



### HOW DO I DISPOSE OF BATTERIES?

AT HOME



AT THE RECYCLING DEPOT



At the metal recycling plant, the various types of metal are melted down and reused in new products



### RESULTS:

In 2019, we collected  
**331 TONS OF METAL**

Metal recycling saved the atmosphere for more than  
**1,800 TONS OF CO<sub>2</sub>**  
= the weight of 300 adult African elephants



PLAST

You dispose of plastic foils & film and rigid plastics in the same section of your recycling bin. There is every good reason to recycle as much plastic as possible. New plastic is made from crude oil, and plastic production processes consume huge amounts of energy. However, the production of products made from plastic waste emits much less CO2 - and that's good for the environment. You must also dispose of

food & drink cartons in the section reserved for plastics. The materials used to make cartons can be recycled in new products. You can read more about food & drink cartons on page 10.



MAD- & DRIKKE-  
KARTONER

## YES PLEASE ✓



Plastic trays · Plastic pots  
Plastic lids · Meat and cold cuts trays



Plastic bottles and canisters  
Plastic packaging



Pliable plastic · Plastic foil/film  
Plastic bags · Sweet bags · Bubble wrap

## PLASTIC PACKAGING – HOW CLEAN?

Plastic packaging must always be empty and scraped clean. Start by pressing or scraping food residues into a food waste bag. If you wish to keep your recycling bin clean, pour a little water into the packaging. Then shake and pour out. It does not matter if there is residue, e.g. ketchup, in a plastic bottle when you dispose of it in your recycling bin.

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## HOW WE RECYCLE PLASTIC ...

 We collect plastic and food & drink cartons from your home address.

 We deliver plastic and cartons to a sorting plant where food & drink cartons are separated from plastic. We then deliver the cartons to another sorting plant.

Read more about recycling food & drink cartons on page 10.





## RECYCLING FACTS

There are many different types of plastic. Most are recyclable. You can often identify the type of plastic by checking the plastic label, but take great care: Class 3 plastics (PVC) are not easily recycled.



## NO THANKS ☹️

### PVC

PVC contains chloride. When ignited, PVC emits vapours that are hazardous to the environment. It is therefore important that you always dispose of PVC at a recycling depot.

**RIGID PVC** is often used in building materials, such as gutters and pipes. You can dispose of these in the Rigid PVC container at the recycling depot.

**PVC FOIL/FILM** are elastic materials used in e.g. Wellington boots, waterproof clothing, beach balls and inflatable mattresses. You can dispose of PVC foil/film at the recycling depot. In the Land Fill container.

### TOYS CONTAINING ELECTRONICS

Toys that flash, play music or have a cable or battery are classified as electronics - even though they are made of plastic. You must dispose of electric toys in your hazardous waste container or in the Small Electronics container at the recycling depot.



### HOW DO I DISPOSE OF RIGID PVC?

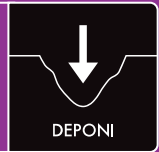
AT THE RECYCLING DEPOT



HÅRD PVC

### HOW DO I DISPOSE OF PVC FOIL/FILM?

AT THE RECYCLING DEPOT



DEPONI

### HOW DO I DISPOSE OF ELECTRIC TOYS?

AT HOME



MILJØKASSE

AT THE RECYCLING DEPOT



SMÅT ELEKTRONIK

The plastic is washed and sorted repeatedly. Sorting methods vary. For example, we use infrared technology. The finely sorted plastic is heated and moulded into granulate. Plastic granulate is used to produce new plastic products, e.g. bin bags, sleeping bag padding and fleece jackets.



## RESULTS:

In 2019, we collected **257 TONS OF PLASTIC** in our recycling bins

While it takes 2 litres of crude oil to produce 1 kg of new plastic, it takes only 1 litre of oil to produce 1 kg of plastic from plastic waste.

Sønderborg's plastic collection saves **257,000 LITRES OF OIL**



MAD- & DRIKKE-  
KARTONER

IN THE  
SAME  
SECTION  
AS:



PLAST

Recycling is changing all the time – and it is now possible to collect and recycle food & drink cartons.

You can dispose of any type of food & drink cartons if they are empty.

You can dispose of food & drink cartons in the same section as plastic. This may seem strange but it does in fact make sense:

Food & drink cartons are almost always wet or contain residues, e.g. yoghurt.

If wet and soiled cartons are mixed with paper and cardboard in the recycling bin, the paper and cardboard get wet. We cannot recycle wet paper and cardboard.

However, we can recycle wet plastic and, if plastic is contaminated with a little milk or tomato ketchup, both wash off.

## YES PLEASE ✓

Cartons that contained fluids, e.g. milk, yoghurt, juice, chocolate milk.

Cartons that contained food, e.g. peeled tomatoes, Bechamel sauce, cherry pie filling, custard.



## CARTONS – HOW CLEAN?

It is important that you press or scrape out as much residue, e.g. yoghurt, from the carton. Pour a little water into the carton. Shake and pour out. It is a good idea to fold the carton flat to save space in your recycling bin. Check out the videos on our website. They provide hints and good advice, e.g. how to flatten food & drink cartons.

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## HOW WE RECYCLE FOOD & DRINK CARTONS ...

 At the recycling depot, cartons are washed in a centrifuge that separates the plastic foil layers on the inside and outside surfaces from the paper fibres in the middle.

... continued from  
pages 8-9



Once clean, the paper fibres can be used to make new paper products.





General household waste is what is left when we have sorted all recyclable material from our waste. General household waste includes items made of multiple materials, e.g. a ring binder, and waste that is impossible to clean, e.g. filled vacuum cleaner bags and pizza boxes.

However, the technology is developing all the time. We can now recycle much of what used to be general household waste. For example, using new technologies, we can now recycle food & drink cartons and gift wrap. In future, you will have less and less general household waste.

## YES PLEASE ✓



Nappies and sanitary waste  
Disposable cloths and wet wipes



Vacuum cleaner bags



Cat litter



Pizza boxes · Wet or soiled paper and cardboard



Packaging or items made of multiple materials that are inseparable, e.g. ring binders and spreadable packs

### HOW DO I DISPOSE OF GIFT WRAP?

AT HOME



PAPIR & PÅP

### HOW DO I DISPOSE OF FOOD & DRINK CARTONS?

AT HOME



PLAST

## HOW WE PROCESS GENERAL HOUSEHOLD WASTE ...



We collect general household waste from your home address.



We deliver general household waste to an incineration plant where it is processed to make heat and electricity.





MADAFFALD

Food waste is any food that you wish to dispose of, e.g. food that you do not wish to eat (carrot tops, outside leaves of lettuce, cheese rind, mouldy bread and yoghurt beyond its best-before date). Food waste is also food that you have not eaten, e.g. leftover lasagne, strips of fat from a steak or peas the kids left on their plate.

Finally, food waste is also everything left over from cooking: Egg shells, meat bones, coffee filters, etc.

Food waste bins must contain only food waste. You must dispose of plastic and metal packaging in your recycling bin.

## YES PLEASE ✓



Food left on your plate · Bread and cake  
Tea bags and coffee filters

Meat and fat · Cheese and dairy products  
Fish bones, meat bones and egg shells

Organic waste · Fruit · Vegetables  
Bouquets of flowers

## HOW DO I DISPOSE OF FOOD WASTE?

Do not overfill food waste bags. It is easy to tie a good strong knot if the bag is not full. Dispose of knotted food waste bags in your food waste bin. If you knot the bag, you reduce the risk of maggots. If you want us to empty your food and general household waste bin each week during the summer months, you can order our summer waste collection service at [www.sonfor.dk](http://www.sonfor.dk).

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## HOW WE RECYCLE FOOD WASTE ...



We collect food waste from your home address.



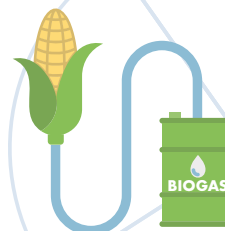
We deliver food waste bags to the biogas plant where the bags are cut open to release their contents. Then the food waste is crushed to a pulp and the biogas filtered out.





Food waste can be made into biogas and converted into fuel. Since 2017, all the buses in Sønderborg Municipality run on biogas. This reduces CO2 emissions from 2,700 tons of CO2 a year to a clean zero. Biogas buses are less noisy, biofuel is cheaper than diesel and biogas buses emit far fewer toxic particles.

From October 2020, all our waste collection trucks will run on biogas or electricity.



## FOOD WASTE BAGS

We supply food waste bags. You can have as many as you need. Our food waste bags are made of 99 % recycled plastic.

### ARE THE FOOD WASTE BAGS MADE OF BIODEGRADABLE PLASTIC?

No. The biogas plant that receives our food waste does not accept biodegradable plastic bags as they can impair the degasification process. However, ordinary plastic bags can be filtered out of the pulp. da de kan hæmme forgasningsprocessen.



### WHAT IF I NEED MORE BAGS?

When you are running out of bags, tie a bag to the top of one of your bins before they are collected. The refuse collector will ensure that you receive more bags.

You can also pick up bags at recycling depots and from our Customer Service Desk at Ellegårdvej 8 in Sønderborg.

If you run out of bags before getting around to ordering new ones, you can use ordinary plastic bags.

## NO THANKS ☹️

### CAT LITTER

Cat litter is not biodegradable and cannot therefore be converted into biogas.



### HOUSE PLANTS

Soil impairs the biogas production process. Do not dispose of house plants as food waste. When you dispose of house plants at a recycling depot, they are composted.

### HOW DO I DISPOSE OF CAT LITTER?

AT HOME




RESTAFFALD

### HOW DO I DISPOSE OF HOUSE PLANTS?

AT THE  
RECYCLING DEPOT



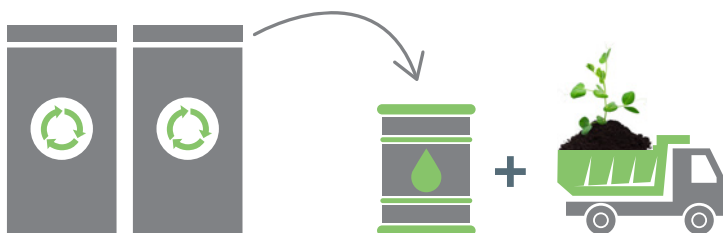
HAVEAFFALD

 The pulp is converted into methane and a residual product called digestate that can be used as agricultural fertilizer.

### RESULTS:

We hope to collect up to **6,000 TONS OF FOOD WASTE** a year in Sønderborg Municipality.

This much food waste converts into sufficient biogas to provide a year's supply of electricity to **1,000 HOUSEHOLDS**





FARLIGT AFFALD



BATTERIER



ELPÆRER



SPRAYDÅSER



MALING



SMÅT  
ELEKTRONIK

If hazardous waste, e.g. chemicals, batteries, light bulbs, aerosol cans, paint and small electronic devices, end up in your general household waste, they can damage the environment. When you dispose of hazardous waste in your hazardous waste container, we ensure that it is processed responsibly. We also ensure that a large number of important raw materials are reclaimed and recycled.

**YES PLEASE** ✓



Hazardous waste · Chemicals  
Unwanted medicines



Batteries  
Always in a transparent bag



Electric light bulbs  
Always in a transparent bag



Aerosol cans · Oven cleaner · Hair spray  
Whipped cream aerosol cans  
Spray deodorant



Paint · Paint residue



Small electronic devices  
Mobile phones · Remote control unit  
Electric toys · Bicycle lamps

## WHY MUST BATTERIES & LIGHT BULBS BE IN A TRANSPARENT BAG?

If you leave spent batteries loose inside a hazardous waste container, they may leak fluids that can form hazardous chemical compounds.

It is therefore important that you put spent batteries into a bag.

Electric light bulbs sometimes contain mercury. If the bulbs shatter in transit, they may constitute a health hazard for the employees who sort the contents of your hazardous waste container. Bags must be transparent so that it is easy to identify the contents.

## RECYCLING FACTS

Small, electronic devices, such as flashing toys and mobile phones, may contain hazardous substances, e.g. heavy metals (such as cadmium and mercury), but they may also contain valuable metals, such as gold, silver and copper.

There is sufficient gold in 200 mobile phones to make e.g. a gold ring. If you want a silver ring, you need only four mobile phones.



## THE RED WASTE CONTAINER – HOW TO USE IT

If you live in a single-family house, you have a red hazardous waste container

Use the red hazardous waste container to dispose of hazardous waste.

When your hazardous waste container is full, put it out with one of your recycling bins or your food and general household waste bin until the next refuse collection.

The refuse collector will take away the full hazardous waste container and replace it with an empty one.



## THE ORANGE WASTE CONTAINER

If you live in student accommodation, an apartment, terraced house or housing association dwelling, you may have an orange hazardous waste container. You use an orange hazardous waste container in the same way as a red one - to store your hazardous waste.

When your orange hazardous waste container is full, you place it in the hazardous waste cupboard (often close to where you deposit other types of waste). You insert the full container on one side of the cupboard and take a new empty container from the other.



## NO THANKS ☹️

### USED SYRINGES

Used syringes, insulin pen pods/cartridges and needles that have been used for subcutaneous injection, i.e. have been in direct contact with blood and tissue.

It is therefore important that you collect them in a sharps bin (available from any pharmacy).

You must dispose of a full sharps bin in your hazardous waste container.





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