

Waste & Recycling

Part 3c – Material Fact Sheets

Food and Drink Cans

In this City/District, preserved food, drink and pet food cans are recycled. There are two types of cans – steel and aluminium – both of which can be recycled repeatedly.



What are our Food and Pet Food Cans made from?

Steel is used to make food cans using three main ingredients - iron ore (from mines), limestone (from quarries) and old used 'scrap' steel. Cans are usually lined with other metals or plastics to resist corrosion.



What are Drink Cans made from?

Aluminium is made from bauxite, a product dug from the ground in mainly tropical areas e.g. Australia, Brazil, Indonesia, Malaysia and West Africa. Often it involves removal of forest. A white powdery material (alumina) is removed from the bauxite.

Alumina is processed into silver-coloured liquid aluminium, poured when molten into moulds to set as rectangular lumps called ingots; these are then rolled and cut to the shape required.

Some drinks cans are made of steel, but the majority tend to be made from aluminium.

What Happens to used Food, Drink and Pet Food Cans?

In our District, cleaned food, drink and pet food cans are recycled in three ways:

1) Via the kerbside recycling collections

Cans placed in the clear recycling bags or kerbside bins are taken to a transfer station, where the bags or bins are emptied and contents sorted.

2) Through the transfer stations

Clean food, drink and pet food cans can be recycled through all transfer stations.

3) Via public recycling bins

Cans placed into the recycling bins are taken to the nearest transfer station.

Once the cans arrive at a central processing point, they are sorted, crushed and baled for selling. (When in the materials recovery facility, magnets extract the steel cans, making the separation process from aluminium easy.)



Photo: Baled cans ready for recycling.



Steel and Aluminium Can Recycling Facts

Aluminium Cans

- Recycling aluminium saves up to 95% of energy compared to using raw materials.
- An aluminium can sent for recycling today will be made into a new can, filled and back on the shop shelf within six weeks.
- Aluminium can be recycled up 21 times without loss of quality.

Steel Cans

- Steel cans have a very thin surface layer of tin, which protects the can's surface; this is why they are often called tins. Some are plastic lined instead.
- Food and drinks cans (both aluminium and steel) make up about 2% of household waste by volume, but are one of the world's most recyclable products.

- Up to a quarter of every steel can is made from recycled steel, so may include scrap metal which has been recycled before through our transfer stations!
- Producing steel from recycled steel saves 75% of the energy needed to make it from raw materials.
- A 60-watt filament light bulb or three 20 watt LED bulbs can be run for over a day using the energy saved from recycling just ½ kg of steel (approx. 23 cans).

What about Reduction and Re-Use?

- Make pen pots, storage containers or utensil holders by painting and decorating unwanted cans. Take care to ensure the top/edges are not sharp.
- Foods often found in cans may be available in other forms or packages - you may be able to get equivalents packed in glass or to make them from unpackaged fresh ingredients: to make soups or sauces for example!

What to Remember when Recycling Steel and Aluminium Cans

- Be careful of sharp edges.
- There is no need to remove paper labels when recycling cans as they burn off in furnaces.
- Save water, rinse cans using old washing up water and a brush; for clean recycling.
- Aerosol cans are recyclable providing they are empty and have plastic lids removed. Partly filled solvent-based spray cans are hazardous waste.
- When placing cans in the recycling bins, ensure they are loose, not in plastic bags.
- Do not litter: bags or boxes of cans must not be left by the recycling bins or outside the transfer station gates.

Class Challenges

1. Encourage everyone to count up how many food cans they use at home and school over a week to calculate if laid end to end, how far these would reach in a week. Once you know the answer, multiply by 4 weeks for a month or 52 for a year.
2. Consider as a class, how many steel or aluminium things you use at home or school, which may be made in part from recycled food or drink cans.
3. Raise school or PTA funds through collecting scrap metal and selling it to a local company; it may be possible for a local scrap metal merchant to provide a can cage for the school, to collect cans for recycling. But think also about what you're buying – sugary drinks contribute to obesity and diabetes problems, so there's no value in encouraging extra purchases just to get the can recycled afterwards!

Further Resources

- Visit www.recycle.co.nz to find interesting facts on the recycling of food and drink cans.
- Look at YouTube for footage showing how food and drink cans are recycled. Example from USA: What's one can? (Jeremy's film, 6.5mins) <https://www.youtube.com/watch?v=P9UjmOHC300>