Can Recycling

Aluminium Cans

Aluminium is the third most abundant element in the earth's crust, after oxygen and silicon.
(Source: Novelis Recycling)

Why recycle aluminium?

- Recycling aluminium drinks cans saves up to 95% of energy used in production of aluminium from raw materials and reduces greenhouse gas emissions by up to 95%.
- Producing energy requires use of fossil fuels - so pollution is reduced too.
- Saves non-renewable natural resources.
- Cuts waste disposal costs.

Steel Cans

Every tonne of steel recycled saves up to 1.5 tonnes of iron ore, 0.5 tonnes of coal and 40% of the water required in production.
(Source: Steel Can Information Bureau)

Steel cans are 100% recyclable.

Why recycle steel?

- Recycling helps to minimise the use of depleting resources such as iron ore, limestone and coal.
- Cuts waste disposal costs.
- Extends the life of landfill sites.
- Using scrap steel saves up to 75% of the energy needed to make steel from virgin materials.

Before you bin it:

Wash food containers and put the lids inside before you take them to the recycling centre.
Squash drinks cans so that they take up less space.

Some Local Authorities have started to collect aerosols for recycling. Do not try to squash, pierce or otherwise damage these, as this is dangerous.

Make sure you only recycle empty aerosols. Remove plastic cap before recycling.

Some steel products such as fire extinguishers and shock absorbers can't be recycled.

More Facts

- Making one aluminium can from raw materials takes 20 times as much energy as it takes to recycle one.
- Steel and aluminium cans can be recycled again and again..without any significant loss of quality—nearly 60% of aluminium used in the UK has been previously recycled!
- The energy saved by recycling one can is enough to run a television for 3 hours.

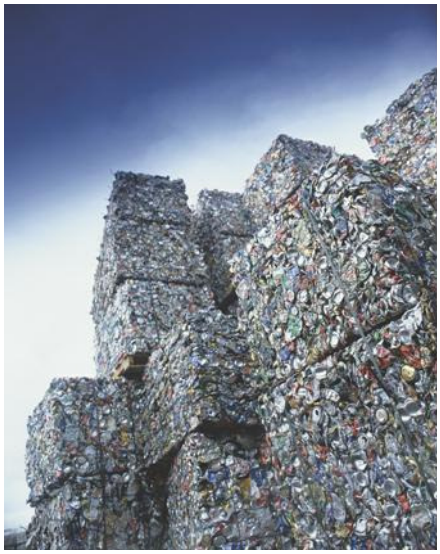
What happens to aluminium when it is recycled? Case Study: Novelis

Stage 1

Aluminium cans can be put recycled in can banks, at the kerbside or at 'cash for cans' centres.

Stage 2

The cans are collected, sorted and baled then taken to Novelis' dedicated used beverage can recycling plant in Warrington.



Stage 3

The bales of cans are shredded into small pieces and the paint removed by blowing very hot air through the shredded metal.

Stage 4

The shreds are melted down in one of two 80 tonne furnaces.

The molten metal is poured into moulds and cooled by a curtain of water. Gradually a solid ingot is formed. These ingots are very large, each one is 15 metres long, weighs 27 tonnes and contains over 1.5 million recycled aluminium cans.

Stage 5

The ingots are transported to a factory where they are rolled into thin coils of aluminium sheeting. One ingot can be rolled out to make 26km of sheeting.

Stage 6

The coils are then transported to can makers, and made into new drink cans.

Stage 7

The cans are then filled and sold in supermarkets ready to be drunk and recycled again. It can take as little as six weeks for an aluminium can to travel around the can recycling 'loop'.

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What happens to steel when it is recycled?

Stage 1
The cans are collected from recycling centres.

Stage 2
The cans are sorted and baled for transportation and then returned to the steel making plant.

Stage 3
The steel is melted down, together with iron ore and limestone.

Stage 4
The liquid metal is poured into a mould and then left to cool down.

Stage 5
When the steel is solid it is chopped into large blocks called ingots.

Stage 6
The blocks are then made into new steel products such as food cans.

Fascinating Facts

- We use around 13 billion steel cans each year – if stacked on top of each other they would stretch to the moon three times.
- The energy saving from one recycled aluminium can is enough to run a television for 3 hours.
- If all the aluminium cans sold in the UK were recycled, there would be 14 million fewer full dustbins each year.
- It is possible for an aluminium can to be given for recycling today, be made into a new can, filled and put back on the shelf in just 6 weeks
- We use 5 billion alucans a year only 1.6 billion are recycled

Links

Alupro
www.alupro.org.uk
Provides information and promotes aluminium can recycling in the UK.

Steel Can Recycling Information Bureau
www.scrib.org
Provide information and promote steel can recycling.

World-Aluminium
www.world-aluminium.org
The international aluminium institute

Novelis
www.thinkcans.com
Provide recycling information.