

What is Aluminium?

Aluminium is a soft, durable and lightweight metal, made from an ore called Bauxite, which is mined from the earth. Bauxite is converted into alumina, a fine white powder. This powder is then smelted at over 700°C, to become aluminium.

The process is expensive and uses a lot of resources, including energy and fuel. It takes five tonnes of bauxite to make one tonne of aluminium cans. Australia produces over one and a half million tonnes of aluminium every year, which is about 6% of the world production.

Why recycle aluminium?

All aluminium cans are 100% recyclable. Aluminium does not degrade during the recycling process, which means it can be recycled over and over again. In 2005, 35.8 thousand tonnes of used aluminium cans were collected across Australia – that's 244.3 million cans!

Australia has a high rate of aluminium can recycling – we are 5th in the World – recycling 70% of our cans. Making one tonne of aluminium from recycled cans saves five tonnes of Bauxite. Recycling aluminium saves millions of tonnes of greenhouse gasses, tonnes of coal which would be needed to generate the electricity and less fuel to transport the various materials around the country.

Making aluminium cans from recycled materials requires less than 5% of the energy used to make new aluminium cans from Bauxite.

How to recycle aluminium

Make sure your aluminium cans are rinsed and empty. Don't put aluminium cans inside one another or inside other containers. Many schools and community organisations such as Scouts and sporting groups collect cans as a fundraiser. In 2015, approximately \$30.6 million was paid to the community for aluminium cans.

Scrap aluminium can also be recycled. Scrap metal dealers offer payments for larger quantities of aluminium.

What happens to the aluminium cans we put out for recycling?

Step 1 – Separation

Trucks take the recycling to a Materials Recycling Facility (MRF) where it is pushed on to a conveyor belt. Aluminium is a metal that doesn't contain iron, so it isn't magnetic. An 'eddy current' is used to induce a magnetic effect in the cans, and they are magnetically lifted from the other recycling items.

Step 2 – Baling

The cans are squashed into big blocks called bales and transported to processing plants where they are fed into furnaces.

Step 3 – Melting

Heating the aluminium to a temperature of 700°C changes it into a liquid state. It is then cast into ingots, ready for delivery to rolling mills where they are milled and remade into new products.

Did you know?

- ★ A recycled can saves enough energy to run a television for three hours.
- ★ Once an aluminium can is recycled, it's back on the grocery shelf within 60 days, as a new aluminium can.