

# Recycling steel and aluminium

## Did you know?

- On average, each Australian disposes of 6kgs of steel cans each year, however, only about 2.5kg of this is recycled – the remaining 3.5kg is sent to landfill.
- Each person in Qld uses about 1.5kg of aluminium cans each year.<sup>1</sup>
- Only 35% of aerosol cans in Australia are recycled even though 94% of Australians (including the Gold Coast) have Council-facilitated aluminium recycling programs.
- About 2.5% of a Gold Coast household waste bin is made up of recyclable steel and aluminium cans. If all of these were put in the household recycling bin instead, the savings each year would be the same as permanently removing over 5,300 cars from the roads and the electricity to run over 1,500 households.<sup>2</sup>

## How are steel and aluminium made?

- The raw material used to make aluminium is bauxite, a mineral from the ground. The bauxite is taken to a processing plant where it is refined into alumina, then on to another plant, where it is smelted into aluminium.
- The raw materials used to make steel are refined iron ore and carbon. These materials are mined, refined and smelted to produce steel.

## What steel and aluminium products can be recycled in your household recycling bin?

- ✓ All steel food cans e.g. pet food tins, tinned vegetable cans, etc.
- ✓ Aerosol cans – empty of contents and plastic lids removed
- ✓ Aluminium drink cans e.g. soft drink cans and beer cans
- ✓ Aluminium foil – e.g. clean pie tins/trays and aluminium foil

## What steel and aluminium products cannot be recycled in your household recycling bin?

- ✗ Scrap metals such as household appliances
- ✗ Metal cutlery
- ✗ Syringes
- ✗ Items made from any other metals (e.g. copper)

**Make sure all containers and foil are cleaned of food and other residue before placing them loosely in your household recycling bin.**

## How are steel and aluminium recycled?

- From your recycling bin, the aluminium and steel cans are taken to the Materials Recovery Facility (MRF) at Carrara to be separated from other recyclables.
- Steel is magnetic and can be separated from the other recyclables with strong magnets. Aluminium is not magnetic so an “eddy current” is used to induce a magnetic effect in the cans so they can be separated out too.
- Once separated, the steel and aluminium recyclables are squashed into large bales and transported to processing plants where they are melted down and reprocessed into new steel and aluminium stock, ready to be made into new cans or other products.

Aluminium and steel are both 100% recyclable and can be recycled indefinitely.

## What are the benefits of recycling steel and aluminium?

- The energy used to make one aluminium can from raw materials is the same as making 20 cans from recycled aluminium.
- The energy used to make one steel can from raw materials is the same as making four cans from recycled steel.<sup>3</sup>
- Recycling 1 tonne of aluminium saves over 20kg of greenhouse gases.
- About 17.5 million steel cans are recycled in Australia each week which is equal to the amount of steel needed to build 900 sedan cars.<sup>3</sup>

## Close the loop and buy recycled

Recycling our aluminium and steel wastes into new products is only successful if there is a market for the recycled product. To become a true recycler make sure you buy products made from recycled materials.

**For more information, please contact Council on 07 5581 6799.**

<sup>1</sup> [www.brisbane.qld.gov.au/recycling](http://www.brisbane.qld.gov.au/recycling)

<sup>2</sup> [www.environment.nsw.gov.au/resources/warr/benefitrecycalJune2008.xls](http://www.environment.nsw.gov.au/resources/warr/benefitrecycalJune2008.xls)

<sup>3</sup> [www.cansmart.org/Facts/fast\\_facts.html](http://www.cansmart.org/Facts/fast_facts.html)