## ALUMINIUM CAN RECYCLE PROCESS



All cans are washed then melted down to molten aluminium at a temperature of $660^{\circ} \mathrm{C}$ to remove any ink from the cans.


The molten aluminium is poured into moulds to create ingots; then sold to manufacturers who make rolls of aluminium foil, which cans are made of.


It takes about 6 weeks from when cans are taken to the Recycling Centre for them to end up on the shop shelves again as a new drink for sale.

## FACTS ABOUT THENUMBER OF PRODUCTS RECOVERED AND RESOURCES SAVED



Cans made from recycled aluminium use $95 \%$ less energy than making them from scratch; and vastly reduce greenhouse gas emissions.


Recycling one aluminium can saves enough energy to power a television for 3 hours.


About 80\% of all aluminium cans bought from shops each year are required of which $50 \%$ soft drink, $30 \%$ beer and $20 \%$ pre-mixed spirits.

## STEEL RECYCLING PROCESS



After collection, steel scrap metal is taken to a processing facility.


Recycling steel diverts these products from landfill, and enables the material to be reprocessed, thereby conserving raw materials.


For every tonne of steel recycled 1131 kg of iron ore, 633 kg of coal and 54 kg of limestone are saved.

## DIFFERENT TYPES OF METAL COPPER, BRASS, ALUMINIUM \& STEEL



Copper is used in a wide range of products due to its excellent electrical and thermal conductivity, good strength, good formability and resistance to corrosion. Copper occurs naturally, as one of the few metals that exists as an element in its natural form in the world.


Brass is mainly an alloy that consists of copper with zinc added. Commonly used for decorative purposes because of its resemblance to gold. It is also frequently used to make musical instruments due to its high workability and durability.



Aluminium is a lightweight metal that's also incredibly strong even when perforated. Aluminium doesn't rust, is fully-recyclable, and can be formed into many different shapes.

## (\%) <br> RECYCLING BATTERIES (VEHICLE\& HOUSEHOLD)



More than eighty thousand tonnes of lead-acid batteries are disposed of in Australia each year.


Recycling battery components is a complex and expensive process due to the chemical processes involved.


After batteries are collected, they are sorted into types and components then sent to licensed recycling facilities in Australia or overseas for processing.


Plastics and metals, such as ferronickel, can be recovered from batteries, recycled and used to manufacture new batteries.

## © <br> RECYCLING TYRES



## 85\% OF RUBBER 95\% OF STEEL

Recycling tyres recovers $85 \%$ of the rubber and $95 \%$ of the steel in the tyre. Which is then used to make new tyres.


OFFSETS UP TO 60\%

Recycling tyres offsets up to 60\% of greenhouse gases emitted when making new tyres.


56 million passenger car tyres come to end of life annually in Australia. Old tyres are used to create Athletics Tracks, Brake Pads, Building Insulation, New Tyres, Playground Surfaces, Sports \& Road Surfaces, Tile Adhesives or as fuel for Energy Recovery.

## ELECTRONIC WASTE



E-waste collected for recycling is almost always manually disassembled and sorted into its various components. These individual materials such as cabling, circuit boards, glass, metals and plastics are then processed for use as raw materials in new products.


Mobile phones are disassembled into component parts, which are then transported to local and overseas recyclers for processing. The plastic can be made into shipping pallets and lithium extracted from the phones can be made into new batteries.

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## RECYCLING PAINT



The paint is taken to the recycling centre, waste paint and packaging is stored at collection point ready for pick up. It's then transported from the collection point for treatment.


The containers are recycled and turned into new packaging materials.


The solvent paint is used as an alternative energy source, replacing fossil fuels in cement kilns. Water is separated from acrylic paint, with the by-product used in a variety of industrial applications.

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## RECYCLING PLASTIC BOTTLES \& DRUMS



Recycling involves many steps. First, the bottles have to be collected from homes, businesses, and other sites. Then the plastic bottles are sorted by plastic type. Then, the bottles are cleaned to remove any food, liquid, or chemical residue.


Next, all of the bottles are ground up and shredded into flakes. Finally, they are melted down and formed into small pellets, each about the size of a grain of rice. The pellets are bundled up and sold to companies that can melt them and make them into many different products.

## RECYCLING PAPER AND CARDBOARD



Cardboard can be recycled along with paper and is remade into many different kinds of paper products. Every time paper is processed the individual fibres become weaker, limiting the number of times it can be recycled - usually up to eight times. The lowest grade of recycled paper goes into cardboard products.


More than 80\% of Australia's paper and cardboard packaging is made from recycled fibre. Recycled cardboard can also be made into sound-proofing material, insulation and even furniture.


Paper that has been recycled is safe to use as mulch or compost as it will break down naturally.

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# RECYCLING USED OIL 



Used oil can be re-refined into lubricants, processed into fuel oils, and used as raw materials in the refining and petrochemical industries.

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## RiN RECYCLING CLOTHING



Collected clothing is sorted in terms of colour and material. The need for re-dying can be eliminated, reducing the need for pollutants and energy. Once cleaned and spun, fibres can be compressed for use in mattress production.

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