

ALUMINIUM INFORMATION SHEET

Aluminium can be found in many aspects of our daily lives, for example:

- **Transportation** - Trains, aeroplanes, cars, bicycles and wheelchairs.
- **Health and Living** - Medicines, toiletries, protective fire suits, food and drinks packaging.
- **Construction** - Buildings, skyscrapers and window frames.



Benefits

- Lightweight yet very strong.
- Resistant to rust when exposed to the atmosphere and water.
- Very versatile; can be moulded, rolled, painted and engraved.
- A good conductor of heat and electricity

Did You Know?

Food packaging such as crisp and snack packets look like aluminium foil, but are in fact metal coated plastic film, which cannot be recycled. Use the SCRUNCH TEST - if it springs back when scrunched in the hand it is plastic.

Recycling aluminium

- Aluminium has been recycled in the UK since the beginning of the 20th century. It can be recycled over and over again without any loss in quality.
- The quality of recycled aluminium keeps prices high, which maintains strong end markets for recycled aluminium.
- Recycling one aluminium can saves 95% of the energy needed to produce one can from raw materials.
- Recycling reduces the need to mine aluminium bauxite, thereby saving a precious raw material.
- Less rubbish will have to be disposed of in landfill sites.

What can I recycle?

- Aluminium food and drink cans, **empty** aerosols.
- Aluminium foil - Foil is made from a different alloy to cans so must be collected and recycled separately. PLEASE CHECK WITH YOUR LOCAL COUNCIL.

Where can I recycle?

After using your aluminium containers, remove food debris by rinsing them in used washing up water ready for recycling.

- **Kerbside recycling collections** - All district and borough councils in West Sussex provide a kerbside collection for used aluminium cans and empty aerosols.
- **Bring banks** - Situated at supermarket car parks and community recycling sites. Deposit your cans in large containers or 'banks'.
- **Household Waste Recycling Sites** - All HWRS in West Sussex provide banks for aluminium cans.

How is aluminium recycled?

Collected cans are taken to a Materials Recovery Facility (MRF) where aluminium is separated from steel using magnets. After sorting they're baled up and transported to a reprocessor for recycling. All aluminium cans collected from West Sussex residents currently go to Novelis; the largest recycler of aluminium cans in the world!

Four stages in the recycling process:

- 1. Shredding** - Mechanical hammers shred and flatten cans into pieces the size of a 50p coin.
- 2. De-coating** - Decoration is removed from the shredded cans by blowing hot air (500°C) through the shreds as they pass by on a conveyor belt.
- 3. Melting** - De-coated aluminium shreds are melted in a furnace, reaching temperatures of 750°C.
- 4. Casting** - Molten aluminium is poured into vertical casting moulds and cooled by water. As it cools it hardens to form an ingot of aluminium 15m long, weighing about the same as four double-decker buses. Each ingot contains around 1.6 million used drinks cans.

What are aluminium cans recycled into?

Ingots are brought by canmakers who will produce new aluminium drinks cans. The whole process takes roughly six weeks.

What about aluminium foil?

Aluminium foil is recycled with other aluminium scrap such as window frames and door handles. Foil is fed straight into the furnace and melted. Molten aluminium is poured into moulds producing smaller ingots of only 1 m in length. These ingots are brought by casting companies, who manufacture components for car engines and aeroplanes.

