

Recycling fact sheet: Plastic

Plastic is mostly made from fossil fuels, such as petroleum and natural gas. All firm plastic containers, such as ice cream containers and detergent bottles, can be recycled using your household recycling bin. These are then turned into products such as outside furniture, clothes, carpet, containers, bottles, pallets and garden products.

Did you know?

- Every year Brisbane residents recycle approximately 6,700 tonnes of mixed plastics.¹
- Some of this recycled plastic is used to make your Council wheelie bin. The recycled plastic from approximately 250 two litre plastic milk cartons is enough to produce one 240 litre Council wheelie bin.
- Recycling just one plastic drink bottle can save enough energy to power a computer for 25 minutes.²
- Every piece of plastic ever produced and not recycled still exists today because plastic never completely breaks down in the environment.³
- Some soft plastics can be recycled through specialist recycling services. For example, you can look for plastic bag recycling at major supermarkets.

Benefits of recycling

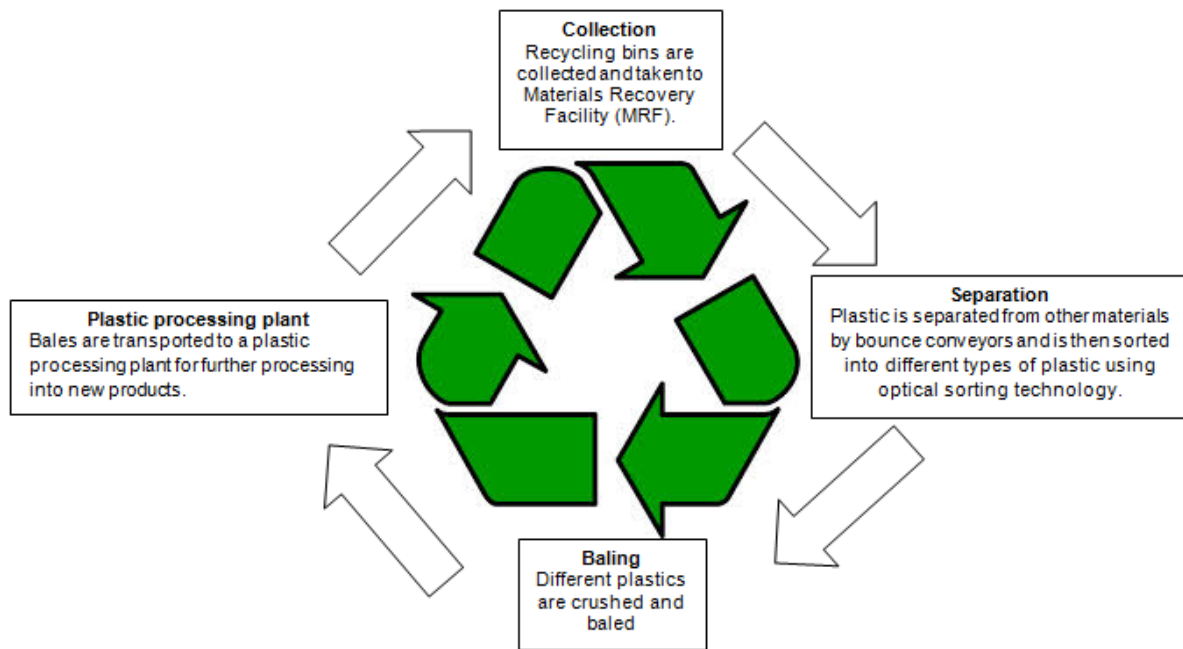
There are many benefits to recycling firm plastics, including those listed below.

- Recycling plastic saves energy. Making plastics from recycled materials saves 70% of the energy needed to make plastic from fossil fuels.⁴
- Recycling plastic saves water. Making products from recycled plastic instead of virgin materials reduces water consumption by 90%.⁵
- Recycling plastic significantly reduces the amount of waste going to landfill. Plastic bottles buried in landfill are not exposed to sunlight and are likely to take thousands of years to break down.⁶
- Recycling plastic saves non-renewable resources. Plastic is made from fossil fuels such as crude oil and gas which are valuable non-renewable resources.
- Recycling prevents plastic from polluting the environment. It has been estimated that there are more than 18,000 pieces of litter floating around in every square kilometre of the ocean.⁷ Plastic continues to be the most common material collected on Clean up Australia Day over the last 20 years.⁸ By putting it in the recycling bin, it becomes a new resource instead of waste polluting the environment.

How is plastic recycled?

After recyclable material is collected from your wheelie bin at home, it is taken to a Material Recovery Facility (MRF) where it is processed for recycling. Firm plastics are separated from other materials by bounce conveyors and then sorted into different types of plastic with optical sorting technology. The different plastics are then crushed into big blocks called bales. The bales are transported to a plastic processing plant for further recycling into new products.

Soft plastics cannot be processed at the MRF because they are light-weight and often get caught around the moving machine parts, causing machines to jam.



¹ The steps in the plastic recycling process.

Plastic identification code

The numbered symbol stamped on plastic containers identifies the type of plastic resin the container is made from. This code makes it easy for re-processors to identify and separate used plastic containers for a range of new uses.

This symbol however is not stamped on all containers and is not always the best way to decide if something can be recycled. Remember if a plastic container is firm, such as soft drink bottles, biscuit trays and yoghurt tubs, it can be placed in your recycling bin.

¹ Visy Brisbane City Council recycling

² www.transpacific.com.au

³ Roberts, Callum *Ocean life: The Fate of and the sea* 2013

⁴ www.visy.com.au

⁵ www.sita.com.au

⁶ www.mrcpolymers.com/PlasticRecyclingFacts.php

⁷ www.unep.org/regionalseas/marinelitter/publications/docs/plastic_ocean_report.pdf

⁸ www.cleanupaustraliaday.org.au/