Plastic identification codes

Waste Sorted

Introduction

The Plastics Identification Code identifies the type of plastic resin a product is made from. The voluntary Code makes it easier for re-processors to identify and separate used plastics for a range of new applications.

ACT residents should not solely rely on this code for their recycling as not all plastic types can be recycled in the ACT.

A guide to the plastic types accepted for recycling at the ACT's Materials Recovery Facility (MRF) is illustrated below.

ACCEPTED IN RECYCLING BIN	CODE	PLASTIC TYPE	DESCRIPTION	EXAMPLE
✓	1 PETE	Polyethylene Terephthalate PET	Clear, tough, solvent resistant. Used for rigid sheets and fibres.	Water bottles, soft drink bottles, fruit juice bottles, fruit punnets and plastic meat trays.
✓	2 HDPE	High Density Polyethylene HDPE	Hard to semi-flexible, waxy surface, opaque.	Cloudy milk bottles, bleach bottles, laundry bottles.
✓	3 V	Unplasticised Polyvinyl Chloride UPVC	Hard rigid, can be clear, can be solvent welded.	Clear cordial, liquid soap bottles and fruit juice bottles.
✗	4 LDPE	Low Density Polyethylene LDPE Linear: LLDPE	Soft, flexible, waxy surface translucent, withstands solvents.	Plastic bags, garbage bags, squeeze bottles, chip packets, plastic wrap, black irrigation tube.
✓	5 PP	Polypropylene PP	Hard, flexible, wide property serange for many applications, good chemical resistance.	Bottles, caps and rigid packaging like margarine containers, icecream containers and yoghurt pots.
✗	6 PS	Polystyrene PS	Clear, glassy, rigid, brittle, opaque semitough, melts at 95°C. Affected by fats and solvents.	Coffee cup lids, plastic cups, medical disposables, clamshells, coat hangers, some yoghurt and dairy containers.
		Expanded Polystyrene EPS	Foamed, light weight, energy absorbing, heat insulating.	Foam packaging, packing peanuts, styrofoam boxes.
✗	7 OTHER	OTHER : Includes all other resins and multi materials of unknown composition, acrylic, bioplastics (PLA), nylon, polyurethane (PU), polycarbonates (PC) and phenolics.		Automotive, aircraft and boating, furniture,takeaway containers and medical parts.

Plastic as packaging

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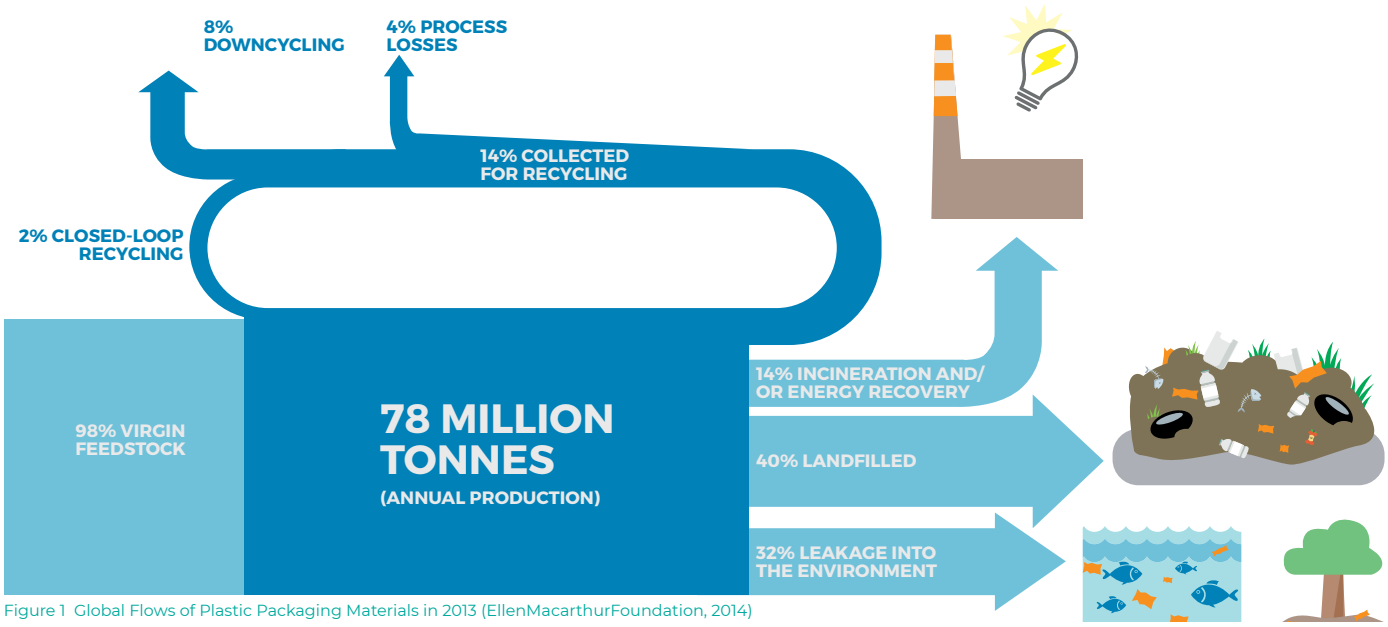

Figure 1 Global Flows of Plastic Packaging Materials in 2013 (EllenMacarthurFoundation, 2014)

Plastic production

Over the past 50 years, plastic production around the world has surged from 15 million tonnes in 1964 to 311 million tonnes in 2014.[3] That's enough plastic to fill 12,400 Olympic swimming pools. This amount is expected to double in the next 20 years,as plastic use continues to rise.

Plastic has many benefits as a packaging material. It is estimated that 26% of the global production is used in packaging applications.[1] It is cheap to manufacture, and can be made into any shape, colour and form required. It is comparatively lightweight which makes it cheaper and more efficient to transport than other forms of packaging. Plastic packaging can also reduce food waste by extending the shelf life of fresh produce. For example, a shrink-wrapped cucumber will stay fresh up to 30 times longer than a loose cucumber.[1]

The problem

Despite these benefits, however, plastics have a serious environmental impact that grows as plastic use increases. A staggering one-third of all plastic escapes into the environment, a rate so high that by 2050 there could be more plastic (by weight) than fish in the ocean.[2]

Currently only about 10% of plastics are recycled, either into new products or converted to other uses. The majority is landfilled (40%) or incinerated for energy (14%), resulting in further risks to the environment.[3] Sadly the rest is lost into the environment.

The solution

There are a number of actions you can take to reduce the amount of plastic ending up in landfill or the environment. You can help reduce plastic waste by avoiding unnecessary and single use plastic products, buying products made from recycled plastics and reusing and recycling plastic products when you can.

Avoid:
Say no to single use plastic such as bags.

Reduce:
Avoid overpackaged items and choose loose fruit and vegetables. Look for sustainable packaging options and those made using recycled materials.

Reuse:
Take your reusable bags with you and reuse containers where possible.

Recycle:
Place all empty and dry recyclable containers and packaging in the recycling bin. Recycle soft plastics at drop-off points at major supermarkets.

References

1. Ellen Macarthur Foundation. https://www.ellenmacarthurfoundation.org/assets/downloads/EllenMacArthurFoundation_TheNewPlasticsEconomy_Pages.pdf
2. Brand Packaging. https://www.brandpackaging.com/articles/86066-the-new-plastics-economy
3. World Economic Forum - The New Plastics Economy http://www3.weforum.org/docs/WEF_The_New_Plastics_Economy.pdf