The Plastic Identification Code - Label your plastics



Plastics New Zealand encourages all companies in the plastics industry to clearly label their plastic products. This means using the number in the chasing arrows as well as the letters on all rigid and flexible packaging and all homeware, engineered, construction and agricultural plastics.

This international code was developed to meet recyclers' needs while providing manufacturers with a consistent, uniform system that could apply worldwide. Plastics New Zealand introduced the Plastic Identification Code to New Zealand in the early 1990s. Our members voluntarily label their plastic products so they can be easily identified for reuse and recycling.

The Plastic Identification Code does not equal recyclability. The code was not intended to be - nor was it ever promoted as - a guarantee that a given item will be accepted for recycling.

The plastic coding system identifies the six most common plastics, grade or type 1 to 6, and has an "other" category, the number 7, for all other resins. "Other" includes combinations of resins, multi materials (e.g. laminates) and degradable plastics.

If you need more information about how to label or identify your plastic products go to our website **www.plastics.org.nz** or contact us at **info@plastics.org.nz**.

For information on how to print the code go to www.pacia.org.au

For specific polymer mixtures and ISO abbreviations refer to:

ISO 11469:2000	Plastics - Generic identification and marking of plastics products
ISO 1043-1:2001	Plastics - Symbols and abbreviated
	terms - Part 1: Basic polymers and
100 1010 0 0000	
ISO 1043-2:2000	Plastics - Symbols and abbreviated
	terms - Part 2: Fillers and reinforcing
	materials
ISO 1043-3:1996	Plastics - Symbols and abbreviated
	terms - Part 3: Plasticizers
ISO 1043-4:1998	Plastics - Symbols and abbreviated
	terms - Part 4: Flame retardants
ISO 15270:2008	Plastics - Guidelines for the recovery
	and recycling of plastics waste.



We recycle more plastics in New Zealand

Over the last 10 years more New Zealand cities and towns have introduced recycling schemes to reduce waste going to our landfills. Ring your Council or Plastics New Zealand to find out what plastic is recycled in your area or go to **www.reducerubbish.govt.nz** and look for the regional links. Most Councils offer kerbside recycling or drop off centres.

Each year the amount of plastic we recycle continues to increase and we are on track to reach the plastics 2008 Packaging Accord recycling target of 23% recovery in 2008. The graph below shows that in 2004 New Zealand recycled a total of 35,442 tonnes in plastic resin types or grades.

For more detailed information about where our plastic is reused and recycled you can download an electronic copy of *Sustainable End of Life Options for Plastics in New Zealand* from **www.plastics.org.nz** and look in the publications section.



Soft drink bottles (PET) milk bottles (HDPE) HDPE Industrial shrinkwrap (LDPE) LDPE

were the most commonly recycled plastic products. Around 60% [22,600 tonnes] of the recovered plastic was sourced from business/industry and the remaining 40% [12,900 tonnes] from households.

SEE OVER

FOR CODES

Why are there so many number 7's? OTHER

Over the last 20 years the plastics industry has developed an ever increasing number of new plastics or new combinations of plastic polymers. All these plastics fall into the other, number "7" code which also includes any mixture of plastics. Most "engineered plastics" such as plastics in electronics are also number 7. These number 7 plastics are still a relatively low volume and represents 6% of plastic resin manufactured into products in NZ.

The Plastics Identification Code is an international code and if New Zealand wants to make additions [such as add new numbers] we need to gain international agreement.

Some common number 7's are:

- Polycarbonate is used to make the large water cooler bottles. It is not used for the smaller hand held water bottles which are made of PET.
- PLA (polylactic acid) a plastic made from a renewable resource
 e.g. corn starch is also a number 7 and has the symbol shown on the right



For more information on degradable plastics and bio plastics go **www.plastics.org.nz**

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TOTAL NEW ZEALAND PLASTIC RECYCLING 2004



Total amount of plastic recovered in 2004 by material type (Source: PNZ Recycling Survey, 2005)



SYMBOL	TYPE OF PLASTIC	PROPERTIES	COMMON USES	RECYCLED IN	PACKAGING	NON PACKAGING
PET	PET Polyethylene Terephthalate	Clear, tough, solvent resistant, barrier to gas and moisture, softens at 70°C	Soft drink and water bottles , salad domes, biscuit trays, salad dressing and peanut butter containers, fleece clothing and geo-textiles	Pillow and sleeping bag filling, clothing, soft drink bottles, carpet		
HDPE	HDPE High Density Polyethylene	Hard to semi-flexible, resistant to chemicals and moisture, waxy surface, opaque, softens at 135°C, easily coloured, processed and formed	Crinkly shopping bags, freezer bags, milk bottles, ice cream containers, juice bottles, shampoo, chemical and detergent bottles, buckets, rigid agricultural pipe, milk crates	Recycling bins, compost bins, buckets, detergent containers, posts, fencing, pipes		
PVC	PVC Unplasticised Polyvinyl Chloride PVC-U Plasticised Polyvinyl Chloride PVC-P	Strong, tough, can be clear, can be solvent welded, softens at 75°C Flexible, clear, elastic, can be solvent welded	Cosmetic containers, electrical conduit, plumbing pipes and fittings, blister packs, wall cladding, roof sheeting, bottles Garden hose, shoe soles, cable sheathing, blood bags and tubing, watch straps, commercial cling wrap	Flooring, film and sheets, cables, speed bumps, packaging, binders, mud flaps and mats		
LDPE	LDPE Low density Polyethylene LLDPE Linear low density Polyethylene	Soft, flexible, waxy surface, translucent, softens at 80°C, scratches easily	Cling wrap , rubbish bags, squeeze bottles, black irrigation tube, black mulch film, rubbish bins, shrink wrap	Rubbish bin liners, pallet sheets, slip sheets		
PP	PP Polypropylene	Hard but still flexible, waxy surface, softens at 145°C, translucent, withstands solvents, versatile	Dip pottles and ice cream tubs, potato chip bags, straws, microwave dishes, kettles, garden furniture, lunch boxes, blue packing tape, automotive parts	Pegs, bins, pipes, pallet sheets, oil funnels, car battery cases, trays		
PS	PS Polystyrene	Clear, glassy, rigid, brittle, opaque, semi-tough, softens at 95°C. Affected by fats and solvents	CD cases, plastic cutlery, imitation 'crystal glassware', low cost brittle toys, video cases, water station cup, safety helmets	Coat hangers, coasters, white ware components, stationery trays and accessories	I	
EPS	EPS Expanded Polystyrene	Foamed, light weight, energy absorbing, heat insulating	Foamed polystyrene hot drink cups, hamburger take-away clamshells, foamed meat trays , protective packaging for fragile items, insulation, insulation panels	Car parts, concrete aggregate, plastic timber		
OTHER	OTHER Letters below indicate ISO code for plastic type including SAN (styrene, acrylonitrile), ABS (Acrylonitrile butadiene styrene), PC (polycarbonate), Nylon, degradable plastic e.g. PLA	Includes all other resins, multi materials (e.g. laminates) and degradable plastics. Properties dependent on plastic or combination of plastics	Packaging, car parts, appliance parts, computers , electronics, water cooler bottles, medical devices,	Car parts, concrete aggregate, plastic timber		