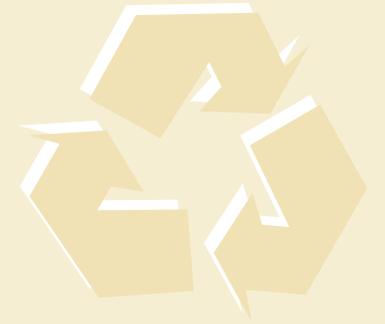


**GREEN GUIDES**

# TREEVOLUTION

The Beginner's Guide to Recycling



## Help us keep this guide up to date

This recycling guide is a work in progress. While we have done our best to make sure that everything is as up-to-date as possible and all the information in here is correct, things change and we're only human. If you find an error, if you know of some information not included in the guide or even if you have suggestions about other types of information to include in future guides, let us know. We plan to update this recycling guide regularly and we will include as many of your suggestions as possible. To download the most recent version of this guide visit [www.treevolution.co.za/guide](http://www.treevolution.co.za/guide)

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# Treevolution's Beginner's Guide to Recycling in South Africa

First edition, November 2011

**Written by Laura Grant**

Layout & geekery by Alastair Otter

[www.treevolution.co.za](http://www.treevolution.co.za)

[guides@treevolution.co.za](mailto:guides@treevolution.co.za)



# Introduction

Household recycling is a relatively new phenomenon in South Africa and the infrastructure for collecting recyclable material from ordinary households and businesses in the same way that general waste is collected isn't really in place yet.

Apart from paper and cardboard – which many of us have been recycling for years – it can be pretty difficult to get information about what you can recycle and how you go about doing it. If the queries sent in to **Treevolution** are anything to go by, there are lots of enthusiastic people out there who really want to recycle, but who are struggling to get going.

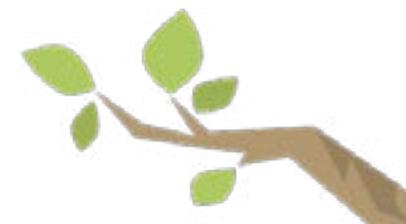
It's really not that complicated. Remember the Chinese saying: A journey of a thousand miles begins with a single step. **Treevolution's Beginner's Guide to Recycling** aims to make it easy for you take your first step in the right direction.

# What's in this guide

- 1 Why you should recycle
- 2 Learn about the three Rs
- 3 Test yourself with a 3Rs quiz
- 4 Some stats about recycling in South Africa
- 5 Learn about what can be recycled
- 6 Start recycling: Treevolution's 3 easy steps gives you tips on how to get started
- 7 An easy guide to plastics: how to tell what plastic you can recycle

## FIND OUT MORE

Treevolution has compiled a list of places where you can drop off your recyclables and businesses that will come and fetch your recyclables. Go to [www.treevolution.co.za](http://www.treevolution.co.za)



## Your impact on the Earth

We live on a planet that has a finite amount of resources – there's only so much fresh water in our lakes and rivers, there's only so much coal and oil reserves under the ground and there's only so much land that's suitable for growing food crops. If we use up all those resources, what then?

The World Wide Fund for Nature says that by 2007 people were already using the resources of 1.5 Earths, double what was being used in 1966, just 45 years ago. By 2030 we could be using the resources of two Earths.

But there is only one Earth.

We need to look after what we've got. And that means living less wasteful lifestyles, and learning that we can no longer just use things once and throw them away into a landfill site.

We need to learn the three Rs: reduce, reuse, recycle.

### ECOLOGICAL FOOTPRINTS

For more about ecological footprints go to [www.footprintnetwork.org](http://www.footprintnetwork.org) and the WWF's [Living Planet Report](#).

## The three Rs: Reducing your impact

When products are recycled they are broken down into their constituent parts and some of those parts, perhaps even all of them, are then used to produce new products. For example, plastic cold drink containers can be recycled and turned into the stuffing for pillows and duvets. But recycling is just one way that you can reduce your impact on the planet and help save resources. There are two other steps that come before recycling — reducing the amount of natural resources you consume and reusing what you buy at least once. Together these steps are the three Rs: Reduce, Reuse, Recycle.

Consider these steps before you recycle:

- Reduce the amount you consume. If you don't need it, don't buy it. It sounds obvious, but how many of us are tempted to buy something simply because it's on special offer or because a new, improved model has come on the market.
- When you do buy something, choose a brand that has the least amount of packaging or the kind that can be reused, recycled or composted. And look for products that are as Earth-friendly as possible.
- Look also for products that are made from recycled material. If there is a demand for recycled plastic products, for example, more plastic will be recycled and less will end up in landfill or polluting the oceans. Also, less virgin material will have to be mined or grown. Remember, what you buy influences what is made.
- Before you throw something away, either for recycling or into your normal rubbish, think first if there is any way it can be reused. Can you grow seedlings in it or use it to hold paper clips or wrap a birthday present? Can it be given to a charity shop, a nursery school or a children's or old-age home?



## How are you doing?

Treevolution has devised a short quiz so you can see how sussed you are when it comes to the three Rs.

1. Do you put at least one 42-litre wheelie bin filled with rubbish out for collection every week?
2. Do you separate out paper and cardboard for recycling?
3. Do you throw glass bottles and jars out with the trash?
4. Do you throw used cans and aluminium foil out with the trash?
5. Do you know what PET is?
6. Do you use reusable bags every time you go shopping?
7. Do you know where your nearest drop-off point for recyclables is?
8. Do you know where to recycle old cell phones?
9. Do you look at the amount of packaging and the recyclability of that packaging before you buy a product?
10. Do you have a compost heap or a worm bin?
11. Do you recycle more material than you throw away?
12. Do you look out for products that are made of recycled material when you are shopping and buy them?

**Scores:** 1. yes = 0, no = 5; 2. yes = 5, no = 0; 3. yes = 0, no = 5; 4. yes = 0, no = 5; 5. yes = 5, no = 0; 6. yes = 5, no = 0; 7. yes = 5, no = 0; 8. yes = 5, no = 0; 9. yes = 5, no = 0; 10. yes = 5, no = 0; 11. yes = 5, no = 0; 12. yes = 5, no = 0.

## Score Yourself

### Between 0 and 10

Well done, you've made a start and, by downloading this guide, we hope to help you keep your footprint shrinking.

### Between 15 and 40

You're doing well. Keep up the good work.

### 45 and over

I bet it takes you at least three weeks to fill your rubbish bin and, when you go out, you find it really hard to throw recyclables away with ordinary trash. You've seen the benefits of living a less wasteful lifestyle and you'll never turn back.



## How is South Africa doing?

South Africa recycles:

- Steel beverage cans: 69%
- Paper: 59%
- Glass: About 25%
- Plastic: About 17%

Informal recyclers, or bin pickers, recover much of this material from dustbins and landfill sites. This is not ideal, firstly from the point of view of the health and safety of the recyclers, but also because the recyclable material is contaminated with other waste. First prize would be if households and businesses sorted their waste, so that “uncontaminated” recyclable material can be collected.

The government wants to reduce the amount of plastic, cans, paper and glass going to landfills by 70% in the next decade or so. To meet that target, households and businesses need to stop simply throwing away rubbish and start implementing the three Rs: Reduce, Reuse and Recycle.

## What can be recycled?

### Metal

Cold drink and beers cans, food tins, aluminium foil, paint tins and aerosol cans can all be recycled. In fact, just about any old metal can. But in your day-to-day household or office waste you'll probably find that you're most likely going to recycle steel food and beverage cans.

In Southern Africa more than two billion steel beverage cans are used every year, according to the [National Recycling Forum](#), and 72% of them are recovered. Those that are collected are taken to steel mills and melted down to make new steel, according to Collect-a-Can, a non-profit used beverage and steel can recovery organisation.

So that you know exactly what you can recycle, here are the four groups of cans that Collect-a-Can accepts:

1. used beverage cans (cold drink and beer)
2. aerosol, oil and paint cans
3. clean food cans
4. aluminium cans (eg, Red Bull)

Rusty cans can be recycled.  
All cans must be empty.

**Cans are 100 percent recyclable. They are melted down to make new steel. This reduces the need to mine new iron ore and saves on the energy used to mine and process it. More than 36 000 tonnes of high-grade steel is recovered by recycling for resmelting a year.**

(Source: Collect-a-can)



## Glass

Glass is made from sand, lime and soda, and is completely recyclable. According to The Glass Recycling Company, in South Africa only 25% of all non-returnable glass containers produced annually are retrieved for recycling, the rest, about 550 000 tonnes, end up in our landfill sites. Glass containers such as tomato sauce, jam and mayonnaise bottles, juice bottles and wine bottles, no matter what the colour, can be recycled.

**Glass is 100 percent recyclable but it does not biodegrade. The raw materials for glass - sand, soda ash and lime, among others - all have to be dug from the Earth and melted together at very high temperatures. Every tonne of glass recycled also saves 1.2 tonnes of raw materials. The energy saved from recycling just one bottle will power a 100-watt light bulb for almost an hour.**

(Source: The Glass Recycling Company)

■ The following items, however, are not collected for recycling: Drinking glasses, light bulbs, crockery and cookware, car headlights, plate glass (window panes), computer and TV screens, laboratory glass and wire-reinforced glass. (Source: [NRF](#))

The Glass Recycling Company provides glass banks which can be found at locations all over the country, such as schools and shopping centres, etc.

### Before you put glass into glass banks:

- Remove the corks and lids
- Rinse bottles or jars to remove food residues if you can because it's more hygienic – although you don't strictly have to
- You don't need to separate the different colours of glass into separate glass banks

\* For more information go to [www.theglassrecyclingcompany.co.za](http://www.theglassrecyclingcompany.co.za), phone 011 803 0767 or email [info@theglassrecyclingcompany.co.za](mailto:info@theglassrecyclingcompany.co.za).

## Paper

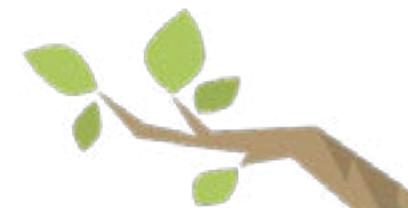
Paper is a renewable resource (because it's made from trees) and most paper can be recycled (thus less trees need to be chopped down and less land and water is needed to grow them).

There are different grades of paper that you can collect for recycling, such as: high-grade white office paper, Kraft paper, corrugated board, cardboard boxes for packing and food, magazines, newspapers, scrap paper such as junk mail, envelopes, wine bottle sleeves, pamphlets and telephone directories.

Recycled paper has a variety of uses. For example: ● used corrugated boxes can be recycled into new corrugated boxes; ● newspapers and magazines can become newspapers again; ● new toilet tissue and paper towelling are made from recycled office paper, newspapers, magazines and printer off-cuts; ● old office paper, corrugated boxes, newspaper, carton board trims and printer off-cuts can be made into cereal boxes and soap cartons; ● and newspapers and carton board trims can be reincarnated as egg boxes. (Source: [NRF](#))

There are some paper products that aren't suitable for recycling, though. They are:

- Laminated, wax-coated, plastic-lined or foil-lined paper and cardboard (this includes juice and milk cartons\*);
- punch confetti and carbon paper;
- stickers and Post-it notes (because of the glue);
- cement bags;
- dog food bags that are lined with plastic;
- disposable nappies.



■ Food wrappings, kitchen towel, paper napkins and tissues also cannot be recycled, but you can put them on your compost heap to biodegrade.

\* Note that although TetraPak, the foil and plastic-lined paper products used as packaging for liquids, cannot be recycled with paper, it is recyclable. See the TetraPak section below.

**Every tonne of paper recycled saves 17 trees, uses 40 percent less energy, and 50 percent less water. If all household paper and cardboard was recycled 750 000 cubic metres of landfill space would be saved a year, saving local authorities R60-million a year in collection and landfill costs. The energy saved from paper recycling in a year is said to be enough to provide electricity to 512 homes for a year.**

(Source: Paper Recycling Association of SA)

In South Africa only about 16% of the paper consumed is not suitable for recovery. If you want to find out more about recovered paper got to [Prasa's website](#).

When you recycle paper it is important to keep your paper clean and dry, preferably by storing it in a separate container from your other recyclables. Buyers will not accept wet paper.

For more information go to the Paper Recycling Association of South Africa's website, [www.prasa.co.za](http://www.prasa.co.za), or phone 11 803 5063.

## Tetrapak

Fruit juice and milk containers look like they're made out of paper, but they are lined with aluminium foil and plastic so they must be recycled separately. Tetrapak has opened its first small-scale recycling facility in Germiston, Gauteng, where its packaging is recycled into roof tiles, furniture and stationery. The company has plans to open more recycling plants around South Africa. For more information go to Tetrapak's website, [www.tetrapak.co.za](http://www.tetrapak.co.za) or contact Re-made, [www.remade.co.za](http://www.remade.co.za). Contact info for their various offices is on the website.

## Plastics

Plastics are made from petrochemical feedstock, which comes from oil, natural gas and coal, all non-renewable resources. Plastics do not biodegrade, they just break down into increasingly smaller particles - this is known as photodegradation because it's caused by the sun's ultraviolet rays.

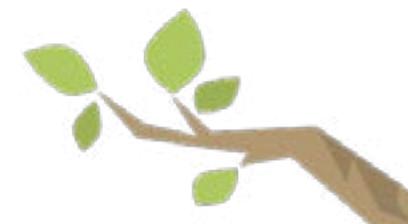
Discarded plastics litter our cities and countryside. They make their way into the oceans through stormwater drains. In the Pacific Ocean there are huge expanses of "plastic soup" - tiny floating pieces of plastic - that are a hazard to sea life. It is up to you to ensure that your unwanted plastic does not become litter and an environmental hazard.

Fortunately, most of the plastic packaging we use every day is recyclable. Ice cream and milk containers, fabric softener bottles, plastic bags and even cling-wrap can all be recycled.

The easiest way to determine whether a plastic product is recyclable is by looking for its recycling logo. There are seven different plastic logos, each representing a different kind of plastic such as PET or polystyrene etc. They are all explained in Treevolution's easy guide to plastics.

**A total of 562-million PET bottles (plastic bottles) were recovered for recycling in 2007 alone. This removed 19 000 tonnes of plastic from landfill. But that was only 24 percent of the PET bottles made that year. Recycling a ton of PET containers saves 7.4 cubic metres of landfill space. PET can be recycled into other products, for instance, 19 x 500ml PET bottles can be recycled into enough fibre filling to make a standard pillow.**

(Source: Petco)



## Electronic waste

E-waste is the term used to describe discarded appliances that use electricity. It includes computers, cellphones, iPods, iPads and other tablets, gaming consoles, fridges and other household appliances, batteries and fluorescent lightbulbs. E-waste contains valuable materials – such as gold, silver, copper and platinum – and harmful materials, such as lead, arsenic, mercury and brominated flame retardant (BFR) plastics, which require special handling and recycling methods. For more information about electronic waste visit the E-waste Association of South Africa's website, [www.e-waste.org.za](http://www.e-waste.org.za).

You can take your unwanted computers, iPods, cellphones and other consumer electronics to drop-off points outside Makro stores. Nokia has drop-off points in a number of its stores where you can take your unwanted cellphones for recycling. For household appliances, car batteries and other ewaste you can look up collection points on the Ewaste Association of South Africa's website: [www.e-waste.org.za/ewaste/collectionpoints](http://www.e-waste.org.za/ewaste/collectionpoints) or phone Ewasa on 031 575 8119.

## Batteries

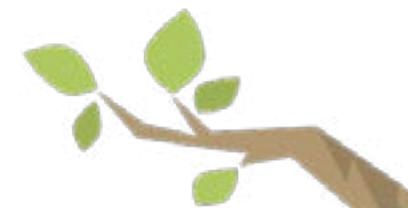
Batteries are a type of electronic waste. Care should be taken not to throw them away with ordinary household waste because they may contain toxic chemicals, such as cadmium, mercury or lead, that can leach into the soil and groundwater if they end up in a normal landfill site. In some countries batteries are considered hazardous waste.

Uniross, a company which makes rechargeable batteries, has joined forces with all Pick n Pay stores and selected Makro, Builders Warehouse and Stax stores to put collection boxes for all battery types in the stores. Uniross collects and sorts the batteries. The non-recyclable ones are "concretised" and disposed of safely, the recyclable ones are put in a container to be sent to a facility in France where they can be recycled. There are no facilities in South Africa that can recycle batteries.

### Types of batteries:

- **Alkaline (alkaline manganese)** are the non-rechargeable batteries commonly used in household items such as toys and torches. Dispose of them in the containers for batteries provided in the stores mentioned above. Or, if you have no option but to throw them away with ordinary rubbish, collect them until you have enough to fill a plastic bag and seal it before you throw it in the bin.
- **Silver oxide batteries or button cell batteries** are found in watches and calculators. These contain mercury, which is a toxic substance. Dispose of these batteries in the same way you'd dispose of alkaline batteries.
- **Nickel-cadmium batteries (Ni-Cd)** are a rechargeable form of alkaline batteries so they will last longer than ordinary batteries. But cadmium is a toxic metal. Dispose of as you would alkaline batteries.
- **Nickel metal hybrid (NiMH)** batteries are also an alternative to alkaline batteries, but these do not contain cadmium. Dispose of as you would alkaline batteries.
- **Lithium ion batteries** are rechargeable batteries found in consumer electronic products such as cellphones and laptop computers. These can be recycled and should be disposed of with electronic waste. Contact ewasa for information: [www.e-waste.org.za](http://www.e-waste.org.za) or 031 575 8119.
- **Lead acid batteries** are the kind that you find in your car. These are very harmful in landfill because they contain lead and sulphuric acid. But they can be recycled. When you replace your car's battery find out if the dealer recycles used batteries.

For a list of drop-off points for batteries visit the Global Carbon Exchange's [waste directory for South Africa](#).

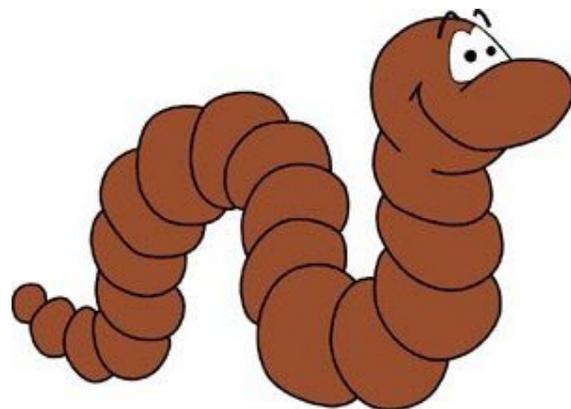


## Compact fluorescent lightbulbs

Low-energy lightbulbs (CFLs) and fluorescent tubes should not be disposed of with normal rubbish. They contain mercury, a toxic substance, that can leach into the soil and groundwater if thrown into ordinary landfill sites. Pick n Pay and Woolworths stores have boxes where you can deposit your used CFLs for safe disposal. For a list of drop-off sites visit the Global Carbon Exchange's [waste directory for South Africa](#).

## Motor oil

The Rose Foundation collects, stores and recycles used lubricating oil. Rose stands for Recycling Oil Saves the Environment. Used oil released into the environment can contaminate water. For more information visit the Rose Foundation's website at [www.rosefoundation.org.za](http://www.rosefoundation.org.za) and for drop-off points for used oil see [www.rosefoundation.org.za/depots.php](http://www.rosefoundation.org.za/depots.php)



## Biodegradable material

Start a compost heap in your garden and put your food scraps (except meat, or you may attract rats), garden waste and paper that's too dirty to recycle onto it. Food waste in landfill sites creates methane, a greenhouse gas that is worse than carbon dioxide when it comes to causing global warming.

If you live in a flat or your garden's too small, buy yourself a wormery and let those little wriggles turn your food scraps into ultra-nourishing vermicompost and worm tea that you can feed to your pot plants.

You can buy worm farms online or your local nursey or craft market may sell them. I've evn seen wormeries for sale in Woolworths. If you're the handy type you can make your own wormery from plastic containers or wood and buy the worms only. These aren't the earthworms you commonly find in your garden. Wizzard Worms ([www.wizzardworms.co.za](http://www.wizzardworms.co.za)) and Mother Earthworms ([www.motherearthworms.co.za](http://www.motherearthworms.co.za)) will courier a bag of worms to your door. If you live in the Johannesburg area you can get wormeries and worms from Earthworm Buddies ([www.earthwormbuddies.net](http://www.earthwormbuddies.net))

Be warned: Not everybody finds keeping worms easy at first. If you need some help or support you could try contacting the Earthworm Interest Group of Southern Africa (EIGSA). For more information email Ken Reid at [kareid@iafrica.com](mailto:kareid@iafrica.com) or Pieter Swanepoel at [earthwormbuddies@lantic.net](mailto:earthwormbuddies@lantic.net)



# Start recycling in three easy steps

## Step 1

### WHAT you are going to recycle?

You can separate your household or office rubbish into five categories:

1. glass,
2. plastic,
3. paper
4. metal
5. biodegradable food waste.

Even if you begin with just one material, like paper, or food waste, less of your stuff will be going to landfill and you'll be headed in the right direction. Don't worry about the colour of the glass, or the colour of the plastic, or the type of paper or whether your metal is aluminium or steel. That's overcomplicating things. Allowing yourself to get bogged down in minutiae like that will put you off recycling.

### Do the one-week challenge

Try separating your rubbish for a week by putting glass, plastic, paper and metal into separate bin bags. Remember to give everything a rinse first so you don't get mould growing on your recyclables. The amount of material you collect in a week will probably surprise you - and, hopefully, give your conscience a jolt.

After a week you should get a fairly good idea of how much of each recyclable material you are likely to collect and therefore how large a container you will need for each material you're going to recycle and how often you will need to get it collected or take it to a drop-off point.

## Step 2

### HOW you are going to recycle?

In South Africa what you recycle is generally determined by **what you are able to recycle** in your area. Some municipalities have started to collect recyclables with other rubbish, but those are few and far between. Generally you have three recycling options:

**OPTION 1:** Organise a kerbside collection service. These are run by private companies and you will have to pay for the service. Fortunately, they tend not to be prohibitively expensive and the convenience factor makes up for the price. Collection services will give you a list of the materials they collect and all you have to do is rinse off the food residues and pop it all into a bag or a wheelie bin (or whatever receptacle your service prefers). In some cases you don't need to separate your stuff into paper, plastic, metal or glass because the company providing the service does this for you. Then once a week - or fortnight or whatever you arrange with the company - you put your wheelie bin or bag on the kerb and a truck comes and takes it away.

**OPTION 2:** Take your recyclables to a drop-off point or a buy-back centre. You will need to find out where the drop-off points or buy-back centres are in your area and probably visit them first to see what material they collect.

**OPTION 3:** Let informal recyclers, or bin-pickers, do your recycling for you. Informal recyclers are the guys who pick through your dustbins on collection days. They are a familiar sight in parts of Jo'burg dragging huge bags full of plastic or paper on trolleys.

To help you find out what recycling services operate in your area. Treerevolution has put together a list of service providers and their contact information. (Go to: [www.treerevolution.co.za](http://www.treerevolution.co.za))



## Step 3

### WHERE are you going to store your recyclables?

You've decided what you're going to recycle, how you are going to recycle it and you have a fairly good idea of how much recyclable material you are going to collect in a week, and from this you can work out roughly how much you'll have after a fortnight or a month. Now you need to think about how and where you will store your recyclables until they're collected or until you take them to a drop-off site. You need to be fairly organised about storage because if you're not you may find that your garage becomes so stuffed with plastic bottles or beer cans that you can't fit your car in. And you have to keep paper in a place where it won't get wet.

At home, most of the material you generate for recycling is likely to be packaging that originates in the kitchen. But before you rush out to buy a fancy recycling bin set for your kitchen, here are some questions you need to ask yourself:

- Is there space for multiple dustbins in your kitchen?
- Do you even need multiple dustbins in the kitchen or can you get by with just two - one for recyclables and one for ordinary waste?
- How big would the bin(s) for recyclables need to be? This would depend on how often you want to empty them.
- If you need to store your recyclables for a period of time before they're collected or dropped off, where will you store them?
- Would you prefer to keep one bin for recyclables in the house and then empty that when it's full into different bigger dustbins outside, one for each different recyclable material?



■ If you do that what size bins you are going to need? This may depend on how long are you going to be storing the recyclables before they're collected or dropped off.

■ Are you going to be able to fit these bins in your car when the time comes to take them to the drop-off site?

If you have a collection service, you generally need about two week's worth of storage space. If you don't have to sort out your recyclables, one 40-litre wheelie bin will probably be adequate for your average household with two children.

### An example from an ordinary home

To give you an idea of how to collect recyclable material in your home or business and store it until it's ready to be taken away, here's an example from an average household of four people.

#### In the kitchen:

- one ordinary-sized rubbish bin for the stuff that can't be recycled
- one ordinary-sized bin for rinsed recyclable stuff (all tins, plastic and glass go in here – not paper though, you need to keep that separate so it remains clean and dry)
- one or two ice-cream containers with lids for food scraps for the compost heap or wormery.

#### Outside:

- 4 big plastic dustbins with secure lids, the kind you buy from hardware shops or stores like Makro for about R150 each. Each is labelled: "plastic", "paper", "metal" and "glass".

Once or twice a day, the kitchen recycling bin can be taken outside and the stuff transferred to the appropriate bin outside. Each bin should have a bin liner in it.



Bigish bins are useful for storage if you have somebody who comes to collect your recyclable stuff because all you need to do on collection day is whip out the bin liners and put them on the pavement for collection. You can use a wheelie bin for this if you have a spare one and if you're worried about dogs rummaging in the bags. Some collection companies offer wheelie bins as part of their service.

If you have bin-pickers who go through the dustbins on collection day, you can put the bags of sorted plastics, cans etc. on top of your rubbish bin. This saves them from having to rummage through your bin, and it keeps the recyclable material from getting contaminated by other household waste. It may be worth speaking to the bin-pickers who work your street to see what it is they are looking for. Some may only collect PET bottles, for example. If you know this, you'll have a better idea of what to put out. (See the Easy guide to plastics)

#### Transporting your recyclables to a drop-off point

If you have to take your recyclables to a drop-off centre yourself, then you probably need to look at a storage option that fits neatly into your car. One tip is to look for plastic boxes with lids rather than bins to store your material in. Heavy-duty plastic boxes are available in a variety of sizes from places like Makro, Mica, Builders Warehouse and supermarkets. These boxes can be stacked neatly and when they're full you can pop them into your boot or back seat without the need for heavy lifting equipment.

**•• Remember, start off simple. As you get the hang of recycling one thing, you can add another, and eventually you'll get to the point where you'll be amazed at how little you actually throw away.**

## The easy guide to plastics

People seem to get quite confused about recycling plastics. The good news is that all plastic packaging these days is generally marked with a recycling logo and number which makes deciding what's recyclable a bit easier. Here each logo is listed so you can identify what kind of plastic you have, whether it is recycled in South Africa, and what products it is recycled into.

While most kerbside collections will take all the different types plastics together in one container and sort them at their sorting centres, drop-off sites tend to have separate containers for different plastics. The most "popular" plastic for recycling in South Africa is PET (or number 1 plastic). HDPE (number 2), LDPE (number 4), PP (number 5) and polystyrene (number 6) are also collected, but not at all drop-off sites or buy-back centres. If you are going to take your plastics to a drop-off point it may be worth your while to first take a look at which plastics are collected there, so you know what you need to sort out at home first.



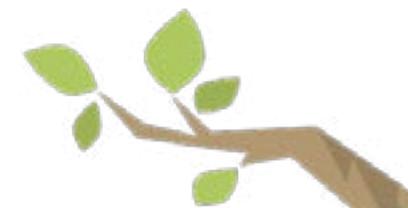
### PET or Polyethylene Terephthalate



PET is a favourite of soft drink manufacturers. It's also used for bottled water and a wide variety of food products are packaged in it. South Africa has a PET recycling company, established in 2004, called Petco. Thanks to the efforts of Petco, PET container recycling is increasing significantly "from 2,000 tons in 2001 to 29,000 tons at the end of 2009. Most used PET ends up in landfill sites in this country and, in fact, 80% of PET is collected from landfill. Collectors gather the PET from there because they can earn a small amount of money for it. They are paid by weight.

#### PET is recycled into ...¶

Hollow-fibre filling for jackets, duvets, pillows and sleeping bags is the main use for clear PET bottles in South Africa. Green bottles



are turned into ceiling insulation (Isotherm). PET is also recycled in geotextiles for road stabilisation and dam linings, and Plastiwood. 1kg = about 25 x one-litre bottles or 50 x 500ml bottles. It takes about 30,000 PET bottles to make one ton of recycled PET, according to Petco. Recently South Africa has acquired the technology to recycle PET into food packaging material.

## HDPE or High-density Polyethylene



This is a thicker, often coloured plastic. You'll find the number 2 logo on milk bottles, cleaning products, cosmetics and toiletries, crates and motor oils, among others.

### HDPE is recycled into ...

Recycling bins, compost bins, buckets, detergent containers, posts, fencing, pipes, plastic timber and plastic chairs.



## PVC or Polyvinyl Chloride



PVC has been described as a "difficult" plastic. When it is burned it releases toxic dioxins. PVC does not appear to be widely recycled in South Africa. If you have PVC products in your household, the advice Treevolution has been given to date is to just throw them away with ordinary rubbish.



## LDPE or Low-density Polyethylene

Number 4 plastic is used to make rubbish bags, frozen veggie bags, building film, some squeezable bottles and cosmetic tubs.

### LDPE is recycled into ...

bin liners, pallet sheets, irrigation piping, a variety of containers, and construction and building film.



## PP or Polypropylene

This type of plastic is used in bottles, ice cream tubs, straws, microwave dishes, kettles, garden furniture, lunch boxes, packaging tape and bottle caps.

### PP is recycled into ...

pegs, bins, pipes, pallet sheets, oil funnels, car battery cases and trays.

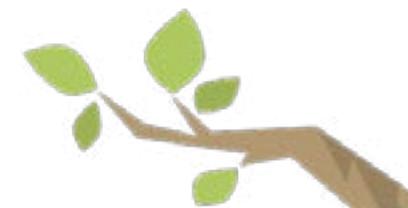


## PS or Polystyrene

There are two kinds of recyclable polystyrene: high-impact, from which products like coathangers and yoghurt cups are made, and expanded polystyrene, from which meat and vegetable trays are made. An industry body called the Polystyrene Packaging Council has been set up to facilitate the recycling of this material.

### PS is recycled into ...

picture frames, curtain rails, finials, skirting boards, cornices, stationery eg, rulers, seedling trays, coathangers.





## Other plastics

This is not the type of plastic you're likely to use much in the home. It is often found in engineering works, or are combinations of plastics. The Plastic Federation of SA says that it is not recyclable so it is best to simply throw it away.

## Unmarked plastics

With awareness of recycling growing, you'll find most plastic containers will be stamped with a number. If you come across something that doesn't have a number, but you suspect that it is recyclable, the advice of the Plastics Federation of SA is that you put the item in a separate plastic bag along with the number 4 plastics. The recycling companies that collect the material from the drop-off sites will sort it out.

## Useful contact numbers

### Glass

The Glass Recycling Company  
[www.theglassrecyclingcompany.co.za](http://www.theglassrecyclingcompany.co.za)  
0861 2 45277 or 011 803-0767

Consol  
[www.consol.co.za](http://www.consol.co.za)  
0861 285538

### Paper

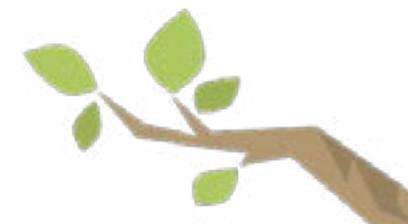
Paper Recycling Association of South Africa  
[www.prasa.co.za](http://www.prasa.co.za)  
011-803-5063

Mondi Recycling  
[www.paperpickup.co.za](http://www.paperpickup.co.za)  
011-538-8600

Sappi  
[www.sappi.com](http://www.sappi.com)  
Gauteng 082 876 7468  
Western Cape 083 227 1379  
Mpumalanga and Limpopo 083 234 6217  
Other provinces 083 234 6284

### Cans

Collect-a-can  
[www.collectacan.co.za](http://www.collectacan.co.za)  
011-466-2939



## Plastic

PET Plastic Recycling South Africa (PETCO)

[www.petco.co.za](http://www.petco.co.za)

086 014 7738

lynn.duplessis@petco.co.za

Polystyrene Packaging Council

[www.polystyrenepackaging.co.za](http://www.polystyrenepackaging.co.za)

012 259-0554

Plastics Federation of South Africa

[www.plasticsinfo.co.za](http://www.plasticsinfo.co.za)

011 314-4021

douw.steyn@plasdfed.co.za

delanie.bezuidenhout@plasdfed.co.za

Buyisa-e-Bag

[www.buyisaebag.co.za](http://www.buyisaebag.co.za)

011 975-9933

Nampak Recycling

[www.nampak.co.za](http://www.nampak.co.za)

0800 018 818

recycling@za.nampak.com

## General info

National Recycling Forum

[www.recycling.co.za](http://www.recycling.co.za)

011 675 3462

Global Carbon Exchange Waste Directory

<http://globalcarbonexchange.co.za/waste-directory/>

For a very informative, practical guide on how to start your own recycling business go to Prasa's website <http://www.prasa.co.za/node/70> and download the pdf entitled "Guidelines for setting up a buy back centre or drop-off site"

## Acknowledgements

The information in this guide has been gathered from a wide range of sources, but particularly helpful were the websites of the Plastics Federation of South Africa (for information on plastics as well as the different types of batteries); the National Recycling Forum; the Paper Recycling Association of South Africa; the Electronic Waste Association of SA; and The Glass Recycling Company. Thank you to Petco and the Polystyrene Packaging Council for emailing information to Treevolution.

Also a big thank you to all the people who emailed questions about recycling to Treevolution.co.za. This guide was inspired by you and was compiled in an effort to answer your questions.

Please share this guide with as many people as you can and feel free to send suggestions to [laura@treevolution.co.za](mailto:laura@treevolution.co.za). Perhaps one day, with your help, South African can become a zero-waste society.

