



# Briefing Paper

## Recycled Plastic Products

### What are the Environmental Issues?

There are important sustainability benefits associated with the use of recycled content products. Purchasing recycled content plastic products helps reduce the use of virgin material, reduces waste going to landfill and conserves non-renewable fossil fuel (oil) that plastic is manufactured from. Choosing recycled plastic can also reduce water, energy and greenhouse gas emissions involved in the manufacturing process. Recycling one tonne of plastics saves enough energy to run an average refrigerator for a month.\*

The long-term success of recycling depends on developing markets for products made from post-consumer recycled materials. Buying recycled plastics helps to 'close the loop' by providing a market for materials that may otherwise go to landfill.

The additional benefit of using recycled content plastic products is that they avoid some of the environmental issues associated with the use of alternate materials. For example, recycled content plastic surfaces do not need painting and are not vulnerable to attack by insects. They repel water and are easily cleaned; even graffiti can be removed with a citrus cleaner. These properties provide environmental benefits because they can eliminate the use of strong cleaners, pesticides, water repellent treatments and other maintenance products. Recycled content plastics also have an extremely long life, minimising maintenance and replacement costs.

\* [www.visy.com.au](http://www.visy.com.au)

### What Recycled Products are Available?

Recycled plastic can be used in a huge variety of products, for example:

- building products
- clothing and textiles
- packaging products
- furniture
- garden and landscape materials
- industrial products
- office products
- recycling and waste management products
- road and pavement products
- traffic management products
- sport and recreational products
- water, sewerage and drainage products
- signage

One particular benefit of using recycled content plastic is that it can be used to replace treated pine in landscape applications. The Australian Pesticides & Veterinary Authority (<http://www.apvma.gov.au>) ordered the use of pine treated with copper chrome arsenate (CCA) to be phased out (by March 2006) because of concerns about health risks. Existing structures do not need to be dismantled (although this has been required in some countries).

## Tips for Purchasers

- Recycled content plastic products will generally provide the same and sometimes a better level of service compared to products made from virgin material. Manufacturers of these products produce goods of high quality to overcome any negative perceptions about manufacturing from former waste. Always speak to your supplier if you have any concerns.
- The recycling industry mainly comprises locally based small and medium enterprises. Buying recycled can therefore promote Australian employment.
- Consider using recycled plastic products to replace pine treated with CCA.

## Tips for Users

- Recycled content plastic products used in traffic management and landscaping applications often perform better operationally than traditional timber, steel or concrete products.
- Remember to promote the fact that your council is using recycled content plastic products, including the various benefits for your council, community and the environment.

## Comparing Products

The most sustainable recycled plastic products will have the following features as well as meeting all your operational requirements.

### Environmental Comparison

- Certification - to appropriate Australian Standard.
- Recycled content – maximum recycled content, preferably from post consumer sources.
- Light weight and long life.
- Low environmental impact packaging.
- Low requirement for chemical protection i.e. intrinsic insect resistance, no painting requirements.

### Economic Comparison

- Life cycle cost of sustainable product is comparable to alternate products.
- Product maintenance requirements – recycled plastic products may require less maintenance.

### Social Comparison

- Supplier is committed to the promotion of recycled materials.
- Supplier demonstrates good corporate citizenship.
- Product enables graffiti to be easily removed (without harsh chemicals).

## Model Tender Clauses

[Council] is committed to purchasing sustainable products whenever possible.

[Council] has determined that the following sustainability considerations must be met when purchasing recycled content plastic products.

### Recycled content plastic products must:

- where appropriate, be certified for compliance with the relevant Australian Standard for the product.
- contain the maximum amount of recycled content, preferably from post-consumer sources.
- be labelled with plastics identification codes (except where the size or shape of the product makes this impossible).
- be suitable for recycling locally.

### Ask the supplier to:

- identify the Australian Standards applicable to the product being purchased.
- specify the percentage of recycled plastic content of the product by weight.
- identify the source of the recycled plastic (or any other recycled content).
- identify the percentage of the recycled plastic content from post consumer sources.
- state whether the product is marked with the plastics identification code.
- list the types of packaging used in delivering their product, including bulk delivery.

## Definitions

**Post-consumer** refers to any material generated by household, commercial or industrial processes after it has been used for its intended purpose. This can include material returned from the distribution process such as overruns or discards.

**Pre-consumer** refers to material diverted from the waste stream during the manufacturing process. This does not include materials reabsorbed in the normal manufacturing process such as scrap or regrind.

**Recycled** refers to material that has been recovered and reprocessed using a manufacturing process into a new product or component.

