

# Why use recycled plastic products?

***As well as being good for the environment, recycled products offer a range of benefits especially for use outdoors.***

## **No more rot, rust, corrosion or termite problems**

There are few materials that can withstand the elements better than recycled mixed plastic. It does not rot like timber and, unlike steel and aluminium, it does not oxidise or corrode in a marine environment. Plastic can endure the full impacts of nature including salt water, borers, termites, heat, sun, wind and rain.

## **It never needs painting**

While timber products need regular maintenance, recycled mixed plastic products do not require painting or oiling. When the products are made, the colour is imbedded in the plastic. This means that for the life of the product there is no protective maintenance required.

## **There are endless applications**

There are hundreds of ways to use recycled mixed plastics. What's more, recycled mixed plastic products can provide a superior service beyond durability.

### **Some applications include:**

- o agriculture, viticulture, aquaculture: vine stakes, farm fences, gates, animal stalls
- o landscaping: retaining walls, walkways, railings, edging
- o horticulture: fences, garden edging, raised garden beds, compost bins
- o industrial: flooring, pallets, safety bollards, truck flooring
- o furniture and fittings: stools, tables, benches, mats, barrier film
- o parks, gardens and recreation: park benches, picnic tables, playground equipment, signage, wetlands walkways, park bridge decking
- o transportation and infrastructure: noise barriers, sign posts, guard rail offset blocks, car stops, speed bumps
- o marine infrastructure: piers, pilings, seawalls, and bulkheads, marina decking.

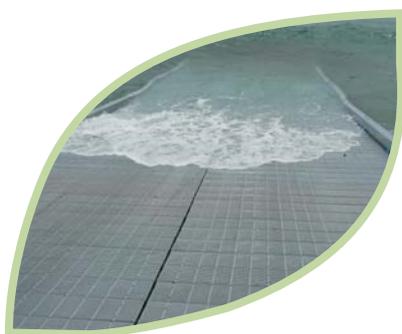
## **Applicable in every environment**

Recycled mixed plastic is the ideal material for outdoor applications, with the ability to withstand the elements.

There is a risk when sourcing durable 'rainforest' timbers that they are not from sustainably managed forests. The result may mean deforestation and loss of habitat for endangered species. When you use recycled plastics you can be confident your organisation is not contributing to these impacts.

## Benefits of recycled plastic – versatility and durability

Recycled plastic has proven to be a versatile, durable and cost-effective option in a wide variety of conditions and uses.



### Marine

#### *Taking the full force of the ocean*

This ocean boat ramp in Woodgate, Queensland is made of 100% recycled mixed plastic decking which has been placed over the existing timber substructure.

The recycled plastic is able to withstand marine environments and is also resistant to UV degradation. The integrated grip pattern adds to its safety and functionality.

### Rainforest

#### *High humidity and boring insects*

This rainforest walk deck uses 100% recycled mixed plastic decking placed over a steel substructure.

Recycled plastic was chosen in this application due to its high resistance to rot and borers, and its performance in a high humidity environment.

Recycled materials also compliment the environmental values of the site while the integrated grip pattern improves safety.



### Desert

#### *High temperatures, termites and full sun*

This elevated bike walk near Alice Springs in central Australia is made using 100% recycled mixed plastic and demonstrates how it:

- o has high UV resistance
- o is termite resistant
- o withstands extremes in temperature
- o can be in direct contact with soil and water without protection
- o can be used to create curves as well as straight runs



### Alpine

#### *Snow, hail, sleet and continuous freezing conditions*

This outdoor seating at the summit of Mt Wellington near Hobart, Tasmania shows how well recycled mixed plastic can perform in extreme environments. It has withstood both hot and cold conditions, including snow and hail, for over ten years.

The 100% recycled plastic material has needed very little maintenance over this time.



## Attractive and functional

Recycled plastic is the ideal material for modern urban designs where striking shapes and low maintenance are required.

The Mildura Rural City Council has undertaken a major redevelopment of the City's mall and recycled plastic was selected to create shade sails around the area. The council chose Envire™ recycled plastic composite profiles as battens in the steel shade structure to absorb the extreme summer temperatures and provide shade relief for users of the mall.



These seats at the University of NSW School of Architecture needed to make a statement. The innovative design makes use of the unique properties of recycled plastic. The colour is embedded in the product allowing a multicolour design that never needs painting. If this were a painted product it would be virtually impossible to maintain without disassembly or extensive masking.

This child and family centre in Queenstown is on the wild and windy west coast of Tasmania. Recycled mixed plastic was chosen for its low maintenance, ability to handle moisture, design flexibility and economy of design. Not only does the shape of the sheets mimic the famous landmark hills surrounding Queenstown, but they are also cut to minimise wastage. Each half sheet is used in two locations on the job, resulting in a stunning architectural design.



This picnic setting at Magnetic Island in Northern Queensland has to endure heat, humidity and close proximity to the sea. The recycled mixed plastic was selected for its ability to handle these challenging conditions.

Recycled mixed plastic outperforms other materials in these conditions, staying relatively cool in the tropical sun. In comparison, timber will not last without constant treatment and metal would become too hot to use.

At Dover Wharf, Australia's southernmost commercial fishing port, large profile 100% recycled mixed plastic have been used as fenders. The material was chosen due to its ability to handle marine conditions, resistance to micro-organisms, smooth finish and flexibility, which also reduces the impact on boats. All this leads to a low maintenance, long lasting structure.



These resources have been developed by ECO-Buy with the support of the Australian Packaging Covenant, Zero-Waste South Australia, and Sustainability Victoria in consultation with users and suppliers of recycled mixed plastic products.

**For further information contact ECO-Buy <http://ecobuy.org.au/contact/>**