

Landscaping Solutions in Recycled Plastic

Sustainable Walkways, Fencing, Signage, Outdoor Furniture....



- Lower whole-life costs than timber
- Visually similar to timber with a choice of surface finishes and colours
- Extremely tough and durable but easy to handle and install
- UV-resistant, splinter-free, crack-proof and requires little or no maintenance
- Rot and algae-proof, insect resistant
- Completely inert – no chemical leach into soil or water

Landscaping Solutions

For more than 25 years Centriforce has been one of the UK's leading recyclers of plastic waste. We take waste from a variety of sources and turn it into finished products, including profiles and board, that are manufactured to meet the exact requirements of our customers.

A growing application area for Centriforce recycled plastic products is landscaping, where we provide a sustainable, longer-lasting and cost-effective alternative to traditional timber. Examples include:-

- Fencing, including post and rail, birdsmouth, picket and panel
- Walkways and pedestrian bridges
- Outdoor furniture
- Signage substrates
- Bird hides
- Viewing platforms
- Waste bins

Environmental benefits

An increasing number of landscape architects and contractors are specifying Centriforce products because of the environmental benefits they provide:

- Timber products are subject to increasing concerns and legislation about sustainable sourcing and restrictions on timber treatments
- Recycled plastic products are completely inert and do not leach any chemicals into the soil or water courses
- Use of recycled plastic materials helps divert materials from landfill

Cost advantages

The products have proven longevity, durability, resistance to damage or vandalism and require little or no maintenance. As a result they provide substantial cost savings compared to traditional timber.



in Recycled Plastic

What our customers say:

Howden Marsh Local Nature Reserve

500 metres of boardwalk.

"The Centriforce material was chosen as an environmentally friendly, rot-free, vandal resistant, maintenance-free and durable solution."

Hugh Roberts, Ponds Conservation Trust.



Ham Wall RSPB Reserve

500m raised and flat boardwalk in wetland environment.

"We are very pleased with this safe, secure and economic installation."

Sally Mills, RSPB



Sizewell Belts Nature Reserve

30m plastic boardwalk with bridges.

"A much better alternative than timber and has brought many benefits."

Alan Miller, Site Manager.



Fencing at Felixstowe (Suffolk Coastal District Council)

Anti-vandal, 'ranch-style' fencing to replace wooden fencing on the sea front.

"The pilot scheme has been very successful and more extensive replacement is planned."

Eddie Peters, Leisure and Tourism, SCDC



Independent Testing & Verification – RAPRA** & WRAP*

Centriforce products used in landscaping projects have been the subject of a number of independent tests and case studies

Evaluation of weathering in mixed polyethylene and polypropylene products

University of Brighton and
RAPRA Technology

Main findings show that as far as the two main criteria – mechanical strength and UV degradation – are concerned there was no appreciable deterioration of the materials after five years continuous exposure in the field. The tensile strength of the Centriforce materials was unaffected by UV exposure and the study concluded that it might have increased slightly. The bulk solid properties and melt flow characteristics were also unaffected by UV exposure.

Full materials tests

University of Portsmouth

The results of a series of materials tests carried out on Centriforce products by the University of Portsmouth also provided excellent results.

Tensile/Bending Tests (BS 373) reported that because of the nature of the material, it will deflect under excessive loading, but not break.

Slip resistance (BS7976-2: 2002): The unique, extra rough surface was rated at 'Excellent' under dry conditions and 'Fully Satisfactory' in wet conditions. Impact resistance (BRE Screed Test): The product showed no visual sign of distress and performed significantly better than concrete.

RAPRA Evaluation of a recycled plastic boardwalk

Test carried out by
RAPRA Technology

Load Bearing Test

The boardwalk was evaluated using the principles of BS 6399 Part 1: 1996 Loading for Buildings – Part 1. Loading the boardwalk with 4.5kN (the standard for 'heavy duty walkways') resulted in no failure.

Note:

General duty walkways (regular two way pedestrian traffic) only requires a concentrated load of 3.6 kN, which is 25% less.

WRAP Case Study

Boardwalk, Howden Marsh Nature Reserve:

Main findings:

- The materials are considered to be visually in keeping with timber alternatives and will not rot.
- The risks associated with using treated timber, such as leaching, are avoided altogether as the plastic is inert.
- The risk of damaging the boardwalk is reduced. The plastic does not split or splinter.
- The plastic materials are easy to install and can be drilled or sawn in a manner similar to timber.
- Minimum maintenance is anticipated and the plastic boardwalk is predicted to have a life span four or five times as long as a timber walkway.
- **The average cost per annum of 100m of this timber walkway over its life is £717.00 almost three times greater than a plastic walkway at £249.00**

WRAP Case Study

Boardwalk, Ham Wall RSPB Reserve

Main findings:

- The plastic is very flexible and forgiving and so adapts to variations in ground conditions.
- The plastic is very tough and does not chip, split or snap, even under high stress.
- The plastic requires no treatment and so is essentially maintenance free.
- The decking is non-slip as it has a 'grain' included in the product. However, handrails can be produced smooth so they do not chafe the skin.
- The material can be drilled, sawn, chiselled etc without the need for specialist tools.
- **The estimated average cost per annum of 100m of this timber walkway over its life is £986.00, more than twice the cost of the plastic walkway at £425.00 per 100m.**

*WRAP – Waste and Resource Action Programme **RAPRA – Rubber and Plastics Research Association

For more information about our products and services please visit

www.centriforce.com



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