

## Case Study

# Using recycled content in plastic packaging: the benefits

Integrating recycled PET into packaging makes good commercial and environmental sense



## Why switch to recycled PET?

- **Show commitment:** demonstrate to customers you really are committed to corporate social responsibility and the environment.
- **Consumer preference:** research shows that consumers display a preference for brands and retailers that use recycled content in their packaging. Recycling plastic content can help to build brand loyalty and change perceptions.
- **Maintain quality:** packaging products in recycled materials is possible without compromising performance, physical properties, storage stability or visual appeal.

**Consumers are increasingly concerned about the environmental impact of packaging, and many retailers are looking at recycled content in packaging as part of the solution. With this in mind, a WRAP (Waste & Resources Action Programme) project has demonstrated that recycled PET (rPET) can be successfully used in the production of new retail packaging.**

Product trials with Coca-Cola Enterprises, Marks and Spencer (M&S), and Boots - in conjunction with plastic recycling specialist Closed Loop London - covered sourcing, production, processing and testing, as well as consumer acceptance.

The trials were the first in the UK to use, and declare, significant levels of recycled post consumer material in PET packaging.

### Integrated recycled content

M&S opted to integrate rPET into the packaging for its 'Food to Go' range. The

retailer developed a new thermoformed bowl incorporating 50% recycled material for its 30-strong range of pre-prepared salads, and a blow moulded bottle with 30% rPET for non-carbonated juices and smoothies. The initiative was communicated to consumers via an on-pack message ("Packaging made from 30%/50% recycled material, 100% recyclable").

Boots elected to trial 30% rPET across its 'Ingredients' shampoo and conditioner range, which consists of 12 product lines in clear blow moulded bottles. One of its key criteria was that there should be no discernable difference to the naked eye between the rPET bottle and the virgin PET container.

Direct feedback from Boots' customers demonstrated overwhelming support for the new packaging.



The ultimate measure of the project's success is that both M&S and Boots are now using rPET across additional product lines. M&S is using it across its 'Food to Go' range and other produce categories, while Boots has committed to the long-term use of rPET. It is considering using rPET in other toiletry applications and investigating its use in food packaging.

**What consumers think**

The positive results of the trials are backed up by WRAP commissioned research which explored consumers' attitudes to buying branded and own label food and non-food products in recycled plastic packaging.

In hall tests, 86% of respondents felt that it would be 'very' or 'quite' good if packaging contained recycled plastic.

Added to this, 78% said that they would feel more positive about a product or manufacturer whose packs contained recycled plastic. The research also revealed that consumers can be more inclined to buy products which use recycled plastic packaging.

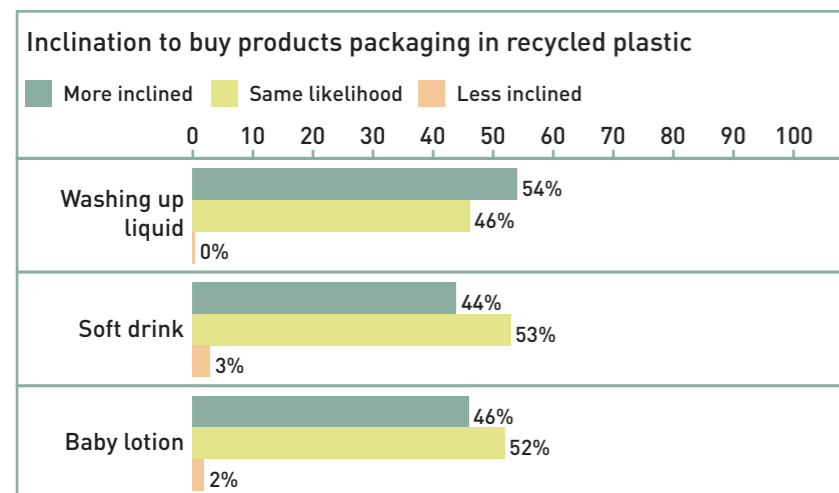
Of those surveyed, 82% said that they would not be put off buying food if packaged in recycled plastic packaging. An amazing 90% of respondents said that manufacturers and retailers should "just get on with it" and use as much recycled plastic as possible.

**Coca-Cola Enterprises: big brands make the change**

Coca-Cola Enterprises has confirmed the viability of rPET for producing carbonated soft drink bottles – a demanding application due to the requirements of pressure, clarity and consistency.

Coca-Cola Enterprises was keen to introduce rPET into its UK production operations, so it embarked on a WRAP project to investigate the inclusion of 25% and 40% rPET resin in its 500ml bottles. 900 million of these bottles are used by the company every year in the UK to package drinks under its iconic Coca-Cola, Fanta, Sprite and Dr Pepper brands.

Over a six month period, 75 million bottles made with 25% rPET were blown, filled and shipped – with successful results. The trial showed that using rPET reduces the amount of energy needed for bottle manufacture compared to virgin resin, offering a small saving in electricity costs.



rPET was also found to be a more forgiving processing material than virgin PET, making set-up and running easier.

WRAP's consumer research also showed that the majority of consumers cannot tell the difference between plastic packs made from recycled or virgin material, even at high levels of recycled content.

The trial was so successful that Coca-Cola Enterprises plans to carry out further research into what combinations and blend ratios of recycled and virgin PET give the best results.

**Dispelling the myths**

The opportunities for using rPET make sound business sense:

**"Will rPET compromise the quality of my packaging?"**

It is perfectly possible to package food and beverages in containers containing a high percentage of recycled material without compromising performance, storage stability or visual appeal.

**"Is there enough rPET for my company to use?"**

Demand for rPET currently outstrips supply, but the situation is changing. Several new UK rPET plants are expected to open in the next 12 months, which will significantly increase supply to the UK packaging sector.

Now is the time to plan to use rPET so that you are ready to take advantage as soon as new material supplies come on stream.

**"Will recycled materials cost more?"**

Bought in small quantities, rPET can be more expensive. However, once economies of scale kick in, the cost of rPET is comparable to virgin PET. Using rPET could present a means of managing fluctuating resin costs.

**"Will changing to rPET jeopardise sales?"**

On the contrary, consumer feedback has shown overwhelming support for the wider use of recycled materials in packaging and the potential to increase sales.

**"Will I have to buy new production equipment?"**

This depends on your product and facilities. In some organisations, no new equipment will be required. In others, additional recycled material storage facilities and blenders will be needed.

**Next steps**

These trials have shown the benefits of using recycled content in PET plastic packaging. The next steps are to increase the supply of rPET and roll out these changes to other high volume products. WRAP is keen to assist other retailers and product manufacturers to replicate the success of the rPET trials at Boots, M&S and Coca-Cola Enterprises.

**If you would like to find out more about rPET and how it can be used in your business, please look at the full technical reports on [www.wrap.org/retail](http://www.wrap.org/retail). For more information or advice, please contact the retail team at WRAP. Tel: 01295 819686; email: [retail@wrap.org.uk](mailto:retail@wrap.org.uk)**

The WRAP Retail Innovation team works with retailers and their supply chains to reduce the amount of packaging and food that households throw away, and promote use of recycled content.

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