

god's gift to man



PLASTIC IS GOD'S GIFT? BEFORE YOU ALL EMAIL IN, LET NATIONAL FLEXIBLE'S CEO, **BARRY TWIGG**, EXPLAIN...



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It is very difficult for anyone living in the developed world to imagine their world without packaging, particularly plastic packaging. Next time you are in your local supermarket, cast your eyes along the rows of shelves and display cabinets then reflect on which products would not be there without their pristine plastic packs. For example, ready meals, meat, pizza, plus most of the contents of the freezer compartment; the list goes on and on.

However, for those of us of a certain age this exercise is not so difficult. Strange as it may seem, not so many years ago all pet food was packed in cans, all milk came in glass bottles, sweets came in big glass jars and biscuits came in biscuit tins. These are just some of the myriads of products where lightweight plastic has replaced the original heavyweight packaging material.

As a consequence of these developments over the last 30-years or so it is impossible to calculate the millions of tonnes of heavy weight packaging which has been displaced. Millions of glass bottles have now been replaced with plastic, all those tin cans are no longer manufactured, never mind the millions of trees not cut down to make cardboard. It is difficult to conceive the massive environmental benefits of eliminating all these heavy packaging materials from the waste streams.

Replacing them with plastic has avoided millions of tonnes of raw material from being recycled simply because bulk raw material was never needed to be used. Yet, perversely, the plastic packaging material which has achieved all these environmental benefits manages to get a bad press for its alleged adverse effect on the environment. It really is unbelievable.

PLASTIC FANTASTIC

I suggest, if plastic was invented today it would be considered a wonder material. It is lightweight, low-cost, flexible and easily disposed of by incineration. This is a material where new technology provides constant innovation for example the latest skin film for meat packaging can now be produced at 75-microns where once 125-micron and above were the norm. This gives a material saving of near 40% on millions of meat packs. Similarly, some of the latest polypropylenes have been engineered to give puncture resistance at 20 micron where historically 25 micron was the norm, again a 20% saving in



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both price and material on millions of packs. (Providing the customers are willing to change).

'Plastic packaging' is a generic term for many different materials. Polypropylene can be metallised, coated, coloured or pearlescent, all of which make it the ideal material for product protection, pack presentation and/or extending shelf life of the contents. Polyethylene comes in hundreds of blends for so many applications, this high-strength material is puncture-resistant with great seal integrity and a perfect film for inclusion in laminates in order to exploit the properties of other films.

Polyester, nylon, cellulose, all these films have their own unique properties which can be improved with coatings or can be combined with high barrier EVOH co-extrusions. The potential for the continued development of film for food packaging is exciting.

HOT STUFF

The current trend towards compostable, biodegradable and so-called eco-friendly films is, in our opinion, unlikely to play a major role in the future of food packaging. For the most part they are difficult to work with, expensive and in reality give very little environmental benefit when subjected to a full life cycle analysis.

The polymers which make up the ingredients of plastic films are, for the most part, a by-product of oil processing for petrol, diesel, aero fuels etc. The polymers which make film still have the inherent stored energy of fuel, as a consequence, they are a perfect material for incineration, not recycling.

Plastic films have a 25% higher calorific content than coal, when incinerated they act as a catalyst for igniting other materials and give off no obnoxious fumes in a controlled waste disposal environment. As an example Sheffield incinerates 240,000 tonnes of waste in a combined heat and power system. Every year.

The Snooker at The Crucible and the World Swimming Championships at Ponds Forge are both heated by Sheffield waste combined heat and power system. The major problem with plastics is also one of its major benefits – its longevity. Thrown away as litter it can be visible for many years, but blaming the material for this attribute, is the equivalent of blaming cars for car accidents.

THANK TECH

Only plastic seems to get bad press for its unique lifelong properties. This material is (thanks to technology) one of God's gifts to man, we should use it wisely and dispose of it sensibly.

To find out a little more about National Flexible and their services see page XX www.nationalflexible.co.uk



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