

Packaging

Packaging has many functions which must be considered during the design. It must *contain* the product to allow transportation to point of sale. It should *protect* products from external contamination to ensure freshness and prevent unwanted tampering. The pack must *inform* the consumer regarding its contents and their impacts and finally it is required to *market* the product at point of sale.

The changing landscape of consumers' means that packaging is needed that is easy to open, convenient, attractive and offers additional functionality, such as extra shelf life. Sustainability is also becoming a key driver both through legislative requirements and consumer demand.

Nature holds many inspirational opportunities to help FMCG* packaging manufacturers and brand owners in their quest for successful products for today's consumers. Reactions inside a banana cause the skin colour to change as the banana ages. This effect is currently being replicated in time-temperature freshness indicators. The colours in butterfly wings are created by ordered textures refracting the light, these effects have been commercially developed by 3M for packaging. New understanding of controlled wetting surfaces could support packaging with superhydrophobic properties resulting in contamination-free and 'no-clean' packaging.

* FMCG: Fast Moving Consumer Goods (anything bought in a supermarket)

Key links

Time-Temperature indicators:

<http://www.timestrip.com/home.html>

The Future of Packaging:

<http://www.faradaypackaging.com>

The Lotus Effect

http://news.nationalgeographic.com/news/2003/02/0227_030227_lotusmaterial.html