



*Is there gold at the end
of the bottle rainbow?*

COLOUR MATTERS

The plastics industry's colour needs are changing — rising energy and resin costs are forcing manufacturers to look to other aspects of the production process to improve their margins. Colour, although in most cases a small part of the overall cost of the final component, can play an intrinsic part in helping companies towards a 'leaner' process.

"Converters and brand companies are seeking value-added attributes in their colour and additive products," says Rod Manfull, business director of US-based colour and masterbatch manufacturer Americhem's packaging and containers division. "They want innovation, creativity and differentiation from their suppliers. All of these items increase their products' speed to market and presents cost savings for both groups."

As brand owners look to special effects as a point of differentiation on the shelves — including sub-branding within manufacturers' offerings — colourant and masterbatch producers are seeing growth in a number of markets and applications.

"In the household/industrial chemicals market, special effects for HDPE are experiencing strong growth," says Manfull. "We also anticipate potential for growth in pharmaceutical packaging. Due to economic trends, the preference is towards polyester versus polypropylene as the resin of choice in this market."

"The food packaging market certainly offers many opportunities for use of colour masterbatches. It is difficult to say if it is the biggest opportunity for colourants but there are opportunities in coffee, large bulk, and wide mouth containers."

The growth of plastics packaging creates an emerging need for technology and innovation to help products stand apart. Steven Pacitti asks what is being done in the area of colours and special effects

Increasing legislation has inevitably fed the growth in food contact plastics, leading to opportunities for value-added effect pigments. But applications such as DVD cases have also led to growth in the Ultramarine market, which Holliday Pigments specialises in.

"Although all of our Ultramarine pigments are suitable for food contact applications, our Premier BC product has been certified 'safe' but its taste and taint-free properties are its strongest positioning," explains Bob Hopkins, Holliday Pigments' UK sales manager. "Bulk plastics, including caps and closures, continue to present the biggest opportunities for us and we have had particular success with bottled water companies."

Ciba added Xymara pearlescent effect pigments to its portfolio in recent months, which give a silky appearance in a range of colour effects from silver to bronze, and when combined with Ciba transparent colorants, create scope for new stylings.

While colour and special effects help distinguish products from their competition, additive products increase the shelf life in a variety of applications. But with increased demand for colourants and additives comes an increased customer demand for faster product delivery and control, quick turnaround of devel-

opment products, flexibility, as well as purchasing and inventory control efficiencies.

Liquid colourants, additives and dosing systems manufacturer ColorMatrix has recently launched the Auto Dispense process in order to satisfy all of these customer demands. The concept, described by ColorMatrix Europe's market development manager — Performance Moulding (EMEA), Zach Crawford, facilitates customer colour matching and ordering so that the required quantity of a specific colour is delivered to the customer's exact requirements.

"The Auto Dispense process requires only the use of a hand-held spectrophotometer to give the user direct control of parameter selection, costs and scheduling to maximise flexibility," says Crawford. "From a simple push of a button a customer can look at a variety of colour matches ranging from closest match to the most cost efficient match. From there, changes and alterations can be made to custom-design the colour."

The hand-held spectrophotometer is nothing new but it does require integration with an on-line matching system to realise its true potential.

"Via the new ColorMatrix website customers are able to select a product based on accuracy of colour



match and cost. In less than five minutes, customers can have their colour standard matched and select the most applicable predicted formulation," says Crawford.

Systems like this give the customer what they want, which is increasingly a just in time strategy, in order to reduce raw material inventory and obsolescence, and gain control over all requirements on batch size from small lots of a few kilograms to large lots.

To speed its own bottle development even further, Americhem recently opened packaging design centres in the US and the UK. Clients can draw from examples of colours, additives and effects and use Americhem's 'Match While You Wait' service.

"Clients can produce up to 20 samples with the desired material, colour range and special effects in any given day, and also take advantage of analysis equipment such as various light sources for viewing samples and spectrophotometers to take colour readings," says Americhem's Rod Manfull. "All of this contributes to faster development time and faster speed-to-market for converters and brand owners."

Another aspect of colourant customers' new lean approach is cleanliness. Here, ColorMatrix has developed a liquid delivery system and packaging concept that offers a closed-loop approach.

"The system has been developed to meet criteria including a lid design to ensure greater than 99 per

Special effects

Procter & Gamble has launched a new sub-brand for its Gain laundry detergent product — named Gain Joyful Expressions — featuring scents designed to give consumers a sensory experience from their laundry detergent. P&G wanted a cranberry colour, which Americhem matched in several different effects: iridescent, metallic and pearlescent. P&G opted for a coloured mid-layer for packaging opacity and an outer layer containing a combined pearlescent/iridescent effect. The development cycle, from conception to prod-

uct launch, took six months and is one of P&G's first multi-effect offerings in the heavy duty liquid product category.

cent material recovery, unparalleled dosing accuracy (cavity to cavity and shot to shot), recyclable packaging, flexible reservoir for continuous interrupted operation, and clean, quick-connects," says Zach Crawford.

For customers, the design and manufacture of coloured components has never been easier. For the colourant and masterbatch suppliers, meanwhile, providing a customised service is becoming increasingly important.

"There is a continuing trend toward lower use rate products, with the addition of functional additives incorporated into the colour," says Manfull. "This creates an all in one custom masterbatch. And of course, products that are eco-friendly and minimise environmental impact are receiving a tremendous amount of attention. A continuing trend that shows no sign of slow-

ing is the use of colours and effects that differentiate products or 'pop' off the shelves. Even store brands and generic products are moving in this direction."

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