



Application note



Ink

Colored inks for retail ready packaging



The retail environment is an ever changing market place with greater emphasis on packaging that protects products throughout the supply chain but also encourages sales of the product off the shelf - commonly known as 'Retail Ready Packaging' (RRP).

This represents a growing sector in the packaging industry worth over \$54 billion in 2011 according to a study carried out by 'Smithers Pira' (a worldwide authority on packaging, paper and print industry supply chains). Between 2011 and 2017 forecasts show continued global growth, driving increased demands on RRP packaging operations.

The challenge:

Innovative brand design is an integral part of retail ready packaging, ensuring packs are visually attractive to capture consumer's attention, however, the necessary printing of mandatory production data such as product description, quantity, and best before dates could be considered to detract from the overall brand. Packaging operations are finding it increasingly difficult to balance the rise in volume of RRP with the demands of coding regulations, alongside internal pressure on cost reduction and the need to produce attractive, strong branded packaging.

Videojet advantage:

At Videojet, we recognize the importance of ink performance characteristics like adhesion, dry time, and contrast to the inline printing steps in our customers' operations. Of equal importance is how customers use that printed information to help drive productivity, efficiency, and shelf velocity. Videojet has a team of application specialists and ink chemists who recognize the power of simple attributes like color to drive meaningful business improvements. As an example, Videojet recently worked with a major European provider of paper and building products to implement inline spot color printing on external packaging to both reinforce their brand and reduce waste and inefficiency in their supply chain. This company takes great pride in their brand color and the message of environmental sustainability represented by that color. In addition, by using a variety of other spot colors on their external packaging, this customer was able to more easily differentiate inventory and meaningfully reduce the number of picking errors, thereby boosting supply chain efficiency.

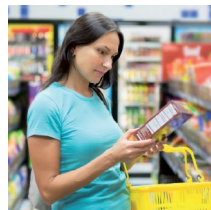
With over 640 inks and fluids in our portfolio, Videojet understands the value of application specific inks to both address packaging challenges but also help improve business performance. The recent introduction of a range of high resolution, high quality, color inks specifically formulated for printing on case packaging creates new opportunities to use color to achieve business objectives.

What is driving the growth in retail ready packaging?



In Fast Moving Consumer Goods (FMCG) markets, fragmentation of traditional media channels (such as TV, radio and cinema) and increased awareness on the impact of Point-of-Sale propositions, coupled with multiple retailers' and brand owners' requirements for RRP, is resulting in the retail store becoming a much more powerful marketing environment.

As a result, global demand for decorative corrugate cases is forecast to grow at double the rate for corrugated as a whole.



Across all regions, both developed and emerging countries are experiencing changes in the structure of retailing, with the main trends being:

- Continued steady growth in the share held by super/hypermarkets that generally adopt fixed-format retailing which involves the increasing adoption of retail ready packaging.
- More growth is evident in the share held by hard discounters creating additional growth in demand for retail ready packaging. This trend is particularly pronounced in Europe where display cases incorporating decorative print and white inner liners are on the increase. In contrast, in the US discounting sector corrugated cases tend to be purchased unopened.
- Growth in multiple convenience stores and other outlets, such as filling stations, leisure centers and food service outlets. These new retail formats will drive up convenience impulse retailing for products consumed 'on the go' with associated product and pack formats creating a move to smaller transit outer case sizes to service these outlets.



In Europe RRP accounts for roughly 50% of FMCG corrugated packaging. It is also becoming increasingly adopted in the US, evidenced by the recent announcement of a licensing agreement involving two-piece retail ready packaging between DS Smith and RockTenn.

In emergent markets, expansion of modern grocery retailing is being driven by western supermarket chains investing in retail developments through acquisition, joint venture and green field sites. Most emerging countries are not fully equipped to manage the new demands that RRP brings to packaging facilities and require substantial infrastructure development to support modern supply chain and distribution.

With rising demand comes rising challenges that need to be considered.

“RRP is, without doubt, the most important retail issue influencing corrugated packaging in FMCG markets.”

Lin Zhu
Ph.D.

Director - Ink Development



New challenges facing case packing facilities



‘Retail Ready Packaging’ offers multiple benefits to customers through increased speed to shelf, reduced out-of-stock situations and improved merchandising productivity driven by the retailer. However, the introduction of more decorated corrugate also presents packaging facilities with a number of new challenges including:

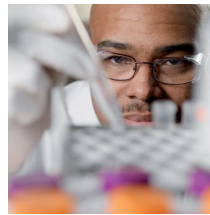
An increase in SKUs has a knock on effect creating additional costs throughout the business as the need for more warehouse and storage space grows. Using a large number of different decorated corrugate cases can also add complexity to the production process as product changeovers increase in frequency.

Many decorated corrugate cases use mostly pre-printed designs, which can create inflexibility for packaging operations by limiting the ability to make last minute changes to package customization. As a result this can increase the amount of waste created as changes to design force existing packaging to be scrapped. Not only does this incur cost and unnecessary waste into the business but it can also add delays as customers wait for the new packaging to be designed and produced.

1. Proliferation of SKUs
2. Increase in warehousing costs
3. Complexity of pre-printed packaging
4. Requirement to do ‘late-stage’ customization
5. Increase in waste



Videojet helps customers overcome some of these issues with their 2300 Series of outer case, high resolution, inkjet printers. The systems are designed and manufactured to reliably print accurate, high quality, real time alphanumeric codes, bar codes and graphics. Using large character, outer case coders can reduce the amount of pre-printed data applied to boxes and offer a highly flexible, cost effective printing solution.



Saving £128,000 in the space of nine months!

A large snack food producer based in the UK came to Videojet with a similar problem. They purchased a large number of different pre-printed outer case cartons to cater for a large variety of products that received regular promotional offers. Using a high volume of SKUs often increased production costs for the company, and they were spending £20k per year just on wasted packaging.

Using a Videojet coding solution to replace some of the pre-printed content allowed the facility to produce a number of more adaptably designed boxes, which meant they could code any bespoke message onto the cases and could change message or brand very quickly. As a result they reduced SKUs from 112 to just 20. This saved warehouse space, reduced working capital and reduced waste, as well as saving them £128,000 in the space of nine months.

Colored Inks to compliment brands



In addition to the challenges outlined earlier, there is much concern over the risk that a brand may be obscured, or that its presentation may be less appealing than that of its competitor brands, which is why brand marketing professionals take great care and consideration in their product's packaging design.

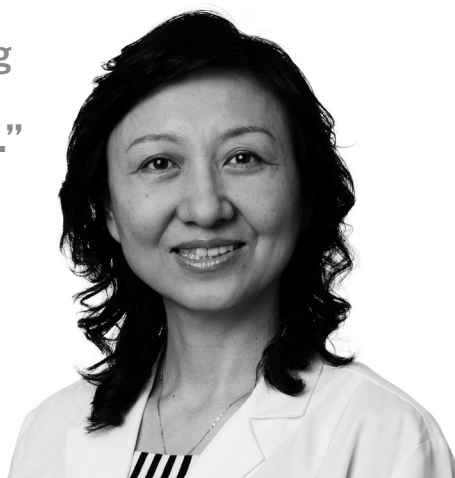
“Videojet understands that customers need to communicate consumer propositions at the point of sale to help build the brand and to stimulate sales at the point of purchase, therefore they want to maximize as much of the packaging for marketing and promotion as possible.”

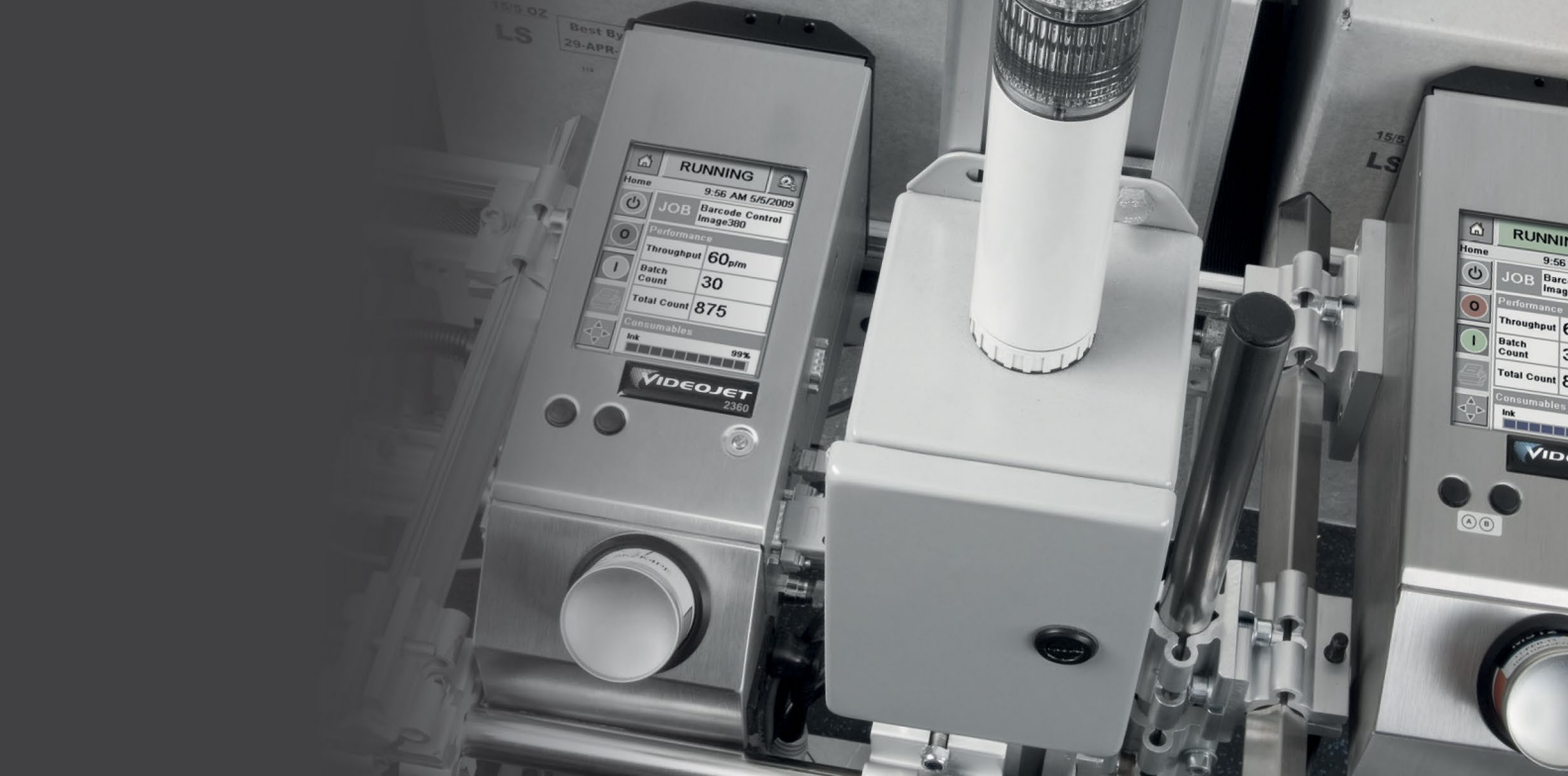
Ping He
M.S.

Staff Chemist
Analytical, surface analysis, substrate
analysis

This can present a conflict between the priorities of brand managers and those of the packaging line teams. Videojet can help customers bridge the gap by offering a new range of inks that can work to compliment the brand. Through a selection of six brightly colored inks, packaging operations can code their products with the necessary production data without it detracting from the packaging artwork.

The inkjet colors can be used to increase visual functionality and interest in the product packaging while maintaining their primary purpose which is to apply high quality, durable printed codes for traceability.





Videojet's colored inks provide high performance on a range of porous papers and different grades of kraft board materials, including those with high recycle content.

Whether for general purpose or specialized applications, Videojet colored inks are designed to provide a number of advantages across a wide range of industry and application requirements.

In particular operating facilities producing 'Retail Ready Packaging' will benefit from visibly attractive codes while addressing some of the challenges that decorated corrugate producers face.

The main benefits of using colored inks:

- Define product variants with different colors
- Link your coding to your corporate image
- Use a color that compliments the packaging artwork, maximizing marketing potential
- Assist quality control or inventory organization using spot color as efficient in-plant visual management
- Increase productivity on 'Retail Ready Packaging' by using colored ink to reduce pre-printed content

The pigmented formulations that Videojet's ink specialists used to develop the new range of colored inks provide the additional benefit of code assurance through:

- Increased UV light fastness and fade resistance, compared to dye-based formulations
- Better water resistance over dye-based inks in applications such as refrigerated or frozen packaging where environmental conditions can produce light condensation
- High print quality over a broad range of substrates
- Crisp codes that optimize bar code readability



The bottom line

To keep pace with the growing demand of RRP, operating facilities need to be prepared to make educated decisions on coding solutions that can support their business critical needs. Videojet stand ready to help with innovative coding solutions that promote operational efficiency as well as offering a range of colored inks to work with customer's packaging design goals.

**Let Videojet help
you select the right
combination of printer
and ink to meet
your production
objectives and product
performance needs.**

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