

# HEIDELBERG's ink-spired innovations

In an industry where precision and efficiency often take precedence, it's the quiet revolutions in ink and coating technologies that truly drive change. These are not the headline grabbing advancements, but rather the meticulous, science-driven innovations that reshape the way packaging is printed.

**WITH a deep dive into HEIDELBERG's latest offerings, Bruce Saunders, consumables business driver at HEIDELBERG Southern Africa, reveals a world where inks and coatings are not just substances on a substrate, but active participants in the push toward greater sustainability, quality and efficiency in print.**

One of the most noteworthy developments from HEIDELBERG is the Saphira Eco Series. These quick-drying inks are entirely mineral oil-free, signalling a clear shift towards more eco-friendly printing solutions. Bruce highlights the special ink types designed for extended washing intervals, reducing downtime and increasing efficiency in the printing process. 'The introduction of HEIDELBERG's Saphira BoFood MU and BoFood Organic range – the first offset ink capable of direct contact printing on the inside of food packaging – marks a significant leap forward, especially for the food packaging industry,' he comments.



As the industry strives for precision, HEIDELBERG's advancements in dispensing systems have taken centre stage. Bruce notes that colour management systems have become increasingly sophisticated, allowing for precise ink laydown on any print substrate. 'With these enhancements, colour is automatically controlled and adjusted, ensuring that the first sellable sheet matches the last with optimal ink laydown,' he explains. This consistency not only enhances colour quality, but also minimises waste – both in inks and materials – by reducing the need for reprints and lowering the risk of downtime. It's a subtle but profound shift that could save printers substantial costs over time.

The evolution of the ink dispensing mechanisms themselves, such as ink pumps and cannisters, reflects ongoing research and development. These improvements are crucial for maintaining the delicate balance between ink and water, a key factor in achieving consistent quality across print runs.

The coatings sector is no less dynamic. HEIDELBERG's specialised coatings, particularly for food-grade applications, complement its ink innovations. Bruce mentions the growing popularity of the matte drip-off effect in packaging as well as the increasing demand for barrier and blister coatings. These coatings are not just about aesthetic appeal, they're designed to enhance the durability and functionality of packaging. This dual focus on form and function is becoming increasingly vital as brands look to stand out on the shelves while ensuring their products are protected and preserved.

## Clever colour

In terms of colour control, HEIDELBERG's latest software advancement, MultiDot, is setting new standards in print quality and efficiency. Bruce describes MultiDot as the next step in screening technology, following the legacy of Stochastic screening. 'MultiDot is designed to produce high-quality print results while offering cost savings in terms of ink, water, time and energy,' he says. By reducing ink consumption by up to 25%, MultiDot is not only cost-effective, but also a more sustainable choice. It tackles common print issues such as misregistration and mottling, while also reducing paper wastage, which further underscores its environmental benefits. The release of MultiDot 2.0, combined with HEIDELBERG's inline colour management system and Prinect software, promises to shape the future of packaging and commercial print jobs.

Sustainability remains a cornerstone of HEIDELBERG's innovation. Bruce highlights the company's push-to-stop technology on new presses, which integrates seamlessly with its advanced coating systems. 'The ability to change over an anilox roller and switch from gloss to matte coating with no manual intervention within minutes is a game changer,' he notes. This reduces downtime, coating wastage and manual labour, all contributing to a more sustainable and cost-effective printing environment.

Ultimately, HEIDELBERG's ongoing advancements in ink and coating technologies reflect a broader industry trend towards sustainability and efficiency.

