

News Release



Solenis and HEIDELBERG Collaborate to Develop Print-Applied, Eco-Friendly Barrier Coatings for Paper Packaging

Innovation supports the growing global need to replace single-use plastic packaging



Solenis and HEIDELBERG are advancing a new way to apply barrier coatings for paper packaging directly in the printing process. (photo: iStock-541976644 / Credit: narvikk)

WILMINGTON, Del. (USA) — [Solenis](#), a leading global provider of water and hygiene solutions, is collaborating with Heidelberger Druckmaschinen AG ([HEIDELBERG](#)), an innovative technology company with a leading position in the global printing industry, to advance a more cost-effective way of integrating barrier coatings for paper packaging directly within the existing flexographic printing process.

[Barrier coatings](#) are used to repel hot and cold liquids, oils, greases, and water vapor in paper packaging.

With this innovation, packaging producers can use the HEIDELBERG portfolio of flexographic machines to print-apply Solenis' barrier coatings. This expands the

possibilities for flat sheet paper and inline web-fed flexo applications with improved product performance and better production efficiency.

Solenis' specialized print-applied coatings include barrier coatings for board material, flexible packaging and cupstock production, as well as anti-slip technical coatings for industrial, shipping and container applications.

For fresh food and e-commerce corrugated packaging, barrier coatings can be print-applied to avoid the use of traditional polyethylene (PE) lamination and paraffin wax, making the material easier to recycle.

For cupstock production, flood-coating barrier protection on cold and hot cups can take place on current equipment and eliminates the need for PE lamination to improve efficiency. For a registered print approach, Solenis' patented heat-sealing coating can be applied easily on conventional cup converting lines to reduce materials and lower costs.

The collaboration addresses the growing demand for more sustainable paper packaging solutions that reduce the use of plastics through environmentally friendly alternatives with improved barrier functionality.

"Packaging companies face increasing pressure to optimize processes while meeting ambitious sustainability goals," said William Kuecker, Senior Director of Strategic Marketing at Solenis. "Our collaboration with HEIDELBERG pushes the boundary of what's possible for packaging manufacturers. With this combination of cutting-edge printing technology and innovative, high-performance specialty coatings, packaging manufacturers can enhance operational efficiency and product performance while meeting the rising demand for sustainable products and processes."

"With our Boardmaster web flexo technology, we are expanding our reach into the high-volume flexible paper segment, targeting the food industry with solutions focused on efficiency and sustainability," said Dr. David Schmedding, Member of the Management Board responsible for Technology and Sales at HEIDELBERG. "This collaboration with Solenis allows us to optimize application processes and technology together to better serve our customers."

Solenis offers a broad portfolio of barrier coatings, including environmentally friendly oil and grease resistance technology.

For more information about Solenis barrier coatings, visit www.solenis.com/chemistryforpaper.

Visit www.heidelberg.com to learn more about HEIDELBERG and the Boardmaster.

FACH PACK 2025 Booth 4A-342
www.solenis.com/chemistryforpaper

About Solenis

Solenis is a leading global provider of water and hygiene solutions. The company's product portfolio includes a broad array of water treatment chemistries, process aids, functional additives, cleaners, disinfectants, and state-of-the-art monitoring, control and delivery systems. These technologies are used by customers to improve operational efficiencies, enhance product quality, protect plant assets, minimize environmental impact, and create cleaner and safer environments. Headquartered in Wilmington, Delaware, the company has 70 manufacturing facilities strategically located around the globe and employs a team of over 16,500 professionals in 130 countries across six continents. Solenis is a 2025 Best Managed Company Gold Standard honoree.

For additional information about Solenis, please visit www.solenis.com or follow us on social media.

About HEIDELBERG

Heidelberger Druckmaschinen Aktiengesellschaft (HEIDELBERG) is an innovative technology company with a leading position in the global printing industry. As a reliable and highly innovative partner, we have been synonymous with quality and future viability for more than 170 years. Thanks to state-of-the-art technologies and innovative business ideas, we shape the future trends in the printing industry. We also use our technology expertise to successfully position ourselves in new business areas such as e-mobility. At the same time, we examine where we can tap new markets on the basis of technological synergies and production-specific features.

Our core business is oriented toward the needs of our customers in our target markets of packaging and label printing as well as special and commercial printing. The focus is on increasing the productivity of the entire value chain by digitizing and automating the necessary process steps, particularly with solutions in the areas of robotics, artificial intelligence, and software-based workflow management.

HEIDELBERG is the leading provider of sheetfed offset machines, a technology used in the production of high-quality, high-volume printed products. In addition, the Company has also expanded its position in flexographic printing for the packaging market and in digital label printing in recent years.

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