

Food-compliant label production with the Gallus Labelfire Low Migration

St. Gallen, December 2021 – In an intensive development effort Gallus and Heidelberg engineers have further developed UV inkjet printing to enable the production of certified food-compliant labels with the Gallus Labelfire. The low migration version of the Gallus Labelfire is designed to produce food-compliant packaging in accordance with EU regulations and Swiss Ordinance. For this purpose, the joint Gallus/Heidelberg development team developed the Labelfire UVLM ink series, which is suitable for food contact packaging. The UV curing technology of Labelfire was also further optimized to improve the migration properties of the ink film.

“The Gallus Labelfire Low Migration represents a real innovation. Compared to the previous press, it makes no compromises when it comes to print quality, colour gamut and lightfastness of the inks”, says Uwe Alexander, Product Manager Digital at Gallus, describing the new digital press. Thomas Schweizer, Head of Business and Product Management at Gallus adds: “Indeed! We call it innovation because, together with Heidelberg, we have achieved a new level of UV inkjet technology. This includes the formulation of the ink and a matching curing technology. This enables our customers to comply with the relevant EU regulations as well as the guidelines of Swiss Ordinance and Nestlé Guidance Note in order to produce food-compliant labels and packaging.”

Saphira Digital Labelfire UVLM inks

A prerequisite for the food-compliant production of labels and packaging is compliance with the relevant legislation and, in addition, the specifications of distributors and brand owners. Labelfire UVLM inks therefore comply with the requirements of EU regulations No. 10/2011, No. 1935/2004, No. 2023/2006 (GMP), Swiss Ordinance, Nestlé Guidance Note and EuPIA guidelines.

However, the use of such inks alone does not guarantee automatic compliance with the migration limits required for certification of such labels.

The new curing system of Labelfire Low Migration

An important production step takes place after inkjet printing with curing of the inks. In addition to the new ink series, the innovative machine system therefore also includes a highly effective UV dryer system to ensure optimum curing.

Directly after printing, the substrate is fed into a dryer with an inert chamber, which is flooded with nitrogen. The extensive exclusion of oxygen leads to optimised curing of the inks. An optional UV booster enhances curing of the Labelfire UVLM inks at higher printing speeds even at maximum production speed.

In addition to this new UV drying system, the Gallus Labelfire Low Migration is equipped with UV and oxygen sensors that measure production parameters. This supports the quality assurance processes in label and packaging printing.

"We are proud to offer our customers a machine system that prints flexibly and efficiently, but furthermore it allows a very broad range of applications and thus also addresses various market segments. The Labelfire Low Migration is perfect for a successful entry into digital packaging printing for the food and pharmaceutical markets," Thomas Schweizer concludes.

Successful Labelfire Low Migration field tests

Two Gallus Labelfire presses have already been producing food-compliant labels and packaging in line with legal requirements for the European market for months in a field test study. Since October this year, the Gallus Labelfire Low Migration has been sold on to customers as a series machine.

Captions

Picture 1

Gallus Labelfire Low Migration equipped with an additional UV booster enhancing the curing of Saphira Digital Labelfire UVLM inks at higher printing speeds

Picture source : Gallus Ferd. Rüesch AG

Picture 2

Saphira Digital Labelfire UVLM inks specially developed for the Gallus Labelfire are supplied in a practical bag-in-box system

Source: Heidelberger Druckmaschinen AG

About Gallus

Gallus with production facilities in Switzerland and Germany, is a leading company in the development, production of conventional and digital narrow-web, reel-fed presses designed for the label and packaging business. The machine portfolio is augmented by a broad range of screen printing plates (Gallus Screeny), globally decentralised service operations, and a broad offering of printing accessories and replacement parts. Products and services of the Gallus brand are distributed through the global Sales and Service network of Heidelberger Druckmaschinen AG. The comprehensive portfolio also includes consulting services provided by label experts in all relevant printing and process engineering tasks. Gallus employs around 290 people, of whom 168 are based in Switzerland, where the company has its headquarters in St. Gallen. For more information, visit www.gallus-group.com

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