

PRESS RELEASE

Pulp laminated dairy cups: ILLIG expands the application range of the new XLU series

The Pulp Lamination Unit (PLU 40) enables the lamination of cups and trays made of pulp with up to 90 mm part depth.

Heilbronn, 17.11.2023 | Thermoforming and packaging specialist ILLIG is expanding the range of applications for the XLU series, unveiled at Interpack in May 2023, with a newly developed lamination process for pulp packaging that achieves drawing ratios of up to 90 mm. An innovative, digital matrix heating concept enables the processing of very thin films (from 50 µm) to cups and trays made of pulp for the packaging of dairy and food products. The focus is on protecting the food against the ingress and egress of gas as well as against contamination. Beyond that, the pulp or cardboard packaging that provides the pack's shape and stability is protected against water and oils without the need for chemical additives such as per- and polyfluoroalkyl substances (PFASs). Thus, less plastic is used and the pulp packaging remains recyclable, depending on film type and film thickness. In addition to the barrier properties, the lamination process also ensures the sealability of the packaging, which is of key importance in many food applications.

Live demonstration at Leygatech open house, December 6th and 7th

On December 6 and 7, 2023, ILLIG will be demonstrating the lamination of pulp containers with a PLU 40 (Pulp Lamination Unit) and show samples of an 80 mm deep cup to the trade public at an in-house exhibition at the French film manufacturer Leygatech in Yssingeaux, France.

The newly developed tool with an integrated digital matrix heating system allows films from a thickness of 50 µm with drawing depths of up to 90 mm for the first time. The parts are stretched without contact, so there are no chill marks caused by pre-stretchers. The steel rule die integrated in the tool enables a clean and reliable cut without fraying.

"Due to legislation and consumer requirements, the French food market is a pioneer in Europe when it comes to implementing sustainable packaging solutions. The expansion of our laminating unit for part depths of up to 90 mm opens up new possibilities for the filling of dairy and food products such as fruits and vegetables", says Éric Maussion, Managing Director ILLIG France.

Modular machine kit for the packaging of the future

The XLU series is a modularly designed machine concept, including the machine variants PLU (Pulp Lamination Unit), CLU (Cardboard Lamination Unit) and TLU (Tray Labeling Unit). The solutions for lamination and labeling are designed primarily for the food and cosmetics industries. The technology company based in Heilbronn, Germany, developed the new product family prioritizing the efficient use of resources and an optimized price/performance ratio.

"For ILLIG, developing the new XLU series was a landmark strategic decision. With these three machine types, we're steadily expanding our global position as a leading

innovator for sustainable but also high-performance packaging machines. Moving forward, our customers will be able to use ILLIG technologies not only to produce purely plastic or cardboard packaging, but also cardboard-plastic or pulp-plastic combinations,” explains Jürgen Lochner, CSO/CTO of ILLIG Maschinenbau GmbH.

How the PLU 40 works

The PLU 40 works in five steps. First, the nonlaminated pulp trays or pulp cups are inserted into the format-independent magazine and automatically separated. The magazine is 1,000 mm long, enabling up to 30 minutes of runtime without refilling. The magazine can be refilled without interrupting the machine. The nonlaminated parts are then removed from the magazine and fed into the laminating station by a newly developed handling system.

The PLU 40 is equipped with a rotating table for two lower tools. Since the handling and laminating processes are performed simultaneously by the rotating table, the number of cycles is increased to up to 10 cycles per minute. In the next step, the rotating table turns 180°, bringing the tray and lower tool into position to be laminated. The film is heated by the innovative contact heater in the upper tool, stretched using a vacuum, and then applied to the tray. The edges of the film are cut off, and the rotating table rotates another 180°. The laminated tray is removed from the lower tool and stacked directly on the discharge conveyor and transported out of the machine.

Images

01 Laminated pulp cups for dairy products

02 ILLIG Pulp Lamination Unit PLU 40

About ILLIG

ILLIG is a leading global supplier of thermoforming, tooling and packaging systems for cardboard, paper and plastics. The company's product and services portfolio includes the development, design, manufacture, installation and commissioning of complex production lines and components. With its unique approach to packaging development, "Pactivity® 360", ILLIG supplies its customers with resource-friendly and sustainable solutions. With its subsidiaries and sales agencies, ILLIG is active in all markets around the world. For over 75 years, the family business has been serving its customers as a reliable partner with innovative technology of unsurpassed quality and comprehensive global service.

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