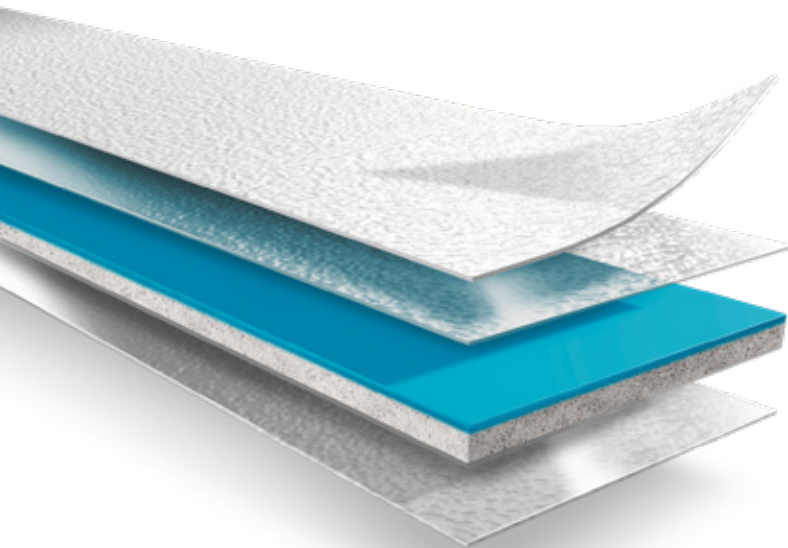


# Application Case: Plate Mounter and Printing Simulator

## Smart Bonding for Flexo: The Print Sample Folder.



In the course of the recent decades, flexo printing has become one of the most successful techniques in relief printing. With the demands in flexible packaging, label printing and post print ever growing, with more complex print jobs and narrower time frames, Lohmann's FLEXperts have been reliably providing their industry partners with their "smart bonding for flexo" approach.

At the heart of this service is, of course, choosing the right plate mounting tape for each specific application. One parameter is the right adhesive combination allowing for a smooth workflow by avoiding edge lifting while ensuring easy repositioning and demounting. Another factor is the quality and hardness of the foam. As a compressible base it is significantly responsible for the optimum print result. Just as important is a smooth integration into the customer processes, including a correct mounting and demounting procedure.

For testing, optimizing and showcasing all of this, Lohmann's Bonding Arena® is equipped with the so-called FlexoLAB, an area dedicated exclusively to the demands of the flexo printing industry. According to the two-step motto "first simulate, then integrate", adhesive products of the DuploFLEX® range are mounted onto a sleeve and the printing plate is installed by means of the mounting machine. Subsequently, they are tried and tested in the print simulator – in a climatic chamber. Thus, the tapes are exposed to various kinds of mechanical and climatic stresses occurring during the printing process. If they withstand, the printing performance is conclusively tested by means of a flexo printing machine.

However, Lohmann's flexo printing expertise does not stay confined within the Bonding Arena®.

For drupa 2020, the world's largest printing exhibition, the FLEXperts have developed yet another innovative tool for their customers. In a joint effort with press manufacturer BOBST, they have created a print sample folder illustrating their well-established DuploFLEX® 5 range's abilities as well as flexo printing's qualitative advancements. The folder focuses on the effects of using different foam hardnesses. The DuploFLEX® 5 range offers four – suiting every need.

The samples were printed on real substrates and done in CMYK by means of two different printing plates produced by Asahi and Kodak in two different speeds (300 m/min and 500 m/min). To offer a significant comparison, identical motifs were used in each case, created in full surface as well as in descending graduations from 100% to 10%. At the same time, dot values were determined



and microscopic images at a magnification of 50 were done.

Because there are various demands in flexo printing, Lohmann's print sample folder contains respective references: From fine lines and details, full color surfaces, challenging motifs and colors (e.g. skin or metallic color), shadows, gradients, barcodes to positive and negative fonts. DuploFLEX® 5.1 offers the softest foam while 5.4 is the hardest option, suitable e.g. for full

surface prints. The ranges 5.2 and 5.3 are ideal combination solutions for prints containing both planes and small details. They are also available as HP (high performance) variants, allowing for an improved print image and a greater durability of up to 200,000 running meters due to the significantly finer cellular structure of the foam.

Considering the trend towards sustainability and more and more printed packaging and bags being made of paper, the FLEXperts also added a paper version of the print sample folder to the original one with filmic material. For that, they cooperated with press manufacturer TRESU and used DuPont printing plates. However, the overall concept, motifs and settings of the folder is exactly the same as in the version printed on film.

For further information, please visit <https://flexperts.lohmann-tapes.com/en> or get in touch via [flexperts@lohmann-tapes.com](mailto:flexperts@lohmann-tapes.com)

#### Product recommendations:

- DuploFLEX® 5.1
- DuploFLEX® 5.2 (HP)
- DuploFLEX® 5.3 (HP)
- DuploFLEX® 5.4