

DuploFLEX[®] 5 Cube System

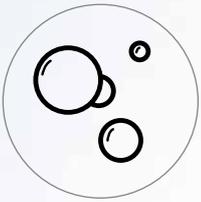
Plate mounting tape solutions for perfect results with 0.55 mm flexo printing.

The DuploFLEX® 5 Cube System

Unique specifications for individual requirements.

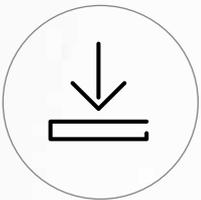
Increasing customer expectation and greater complexity result in higher demands on flexible packaging printing. Thus choosing a suitable plate mounting tape is the key to ensuring increased efficiency and process reliability. Solutions that are easy to mount and demount whilst guaranteeing perfect print results are essential.

The DuploFLEX® 5 Cube System meets exactly these demands, with its wide selection of adhesive tapes with different foam qualities, adhesive formulations and foam hardnesses. These specifications have been cleverly combined in the DuploFLEX® 5 Cube System - the innovative guide for perfect print results.



Foam quality

- Polymer foam for demanding print jobs
- High-performance polymer foam for very demanding print jobs



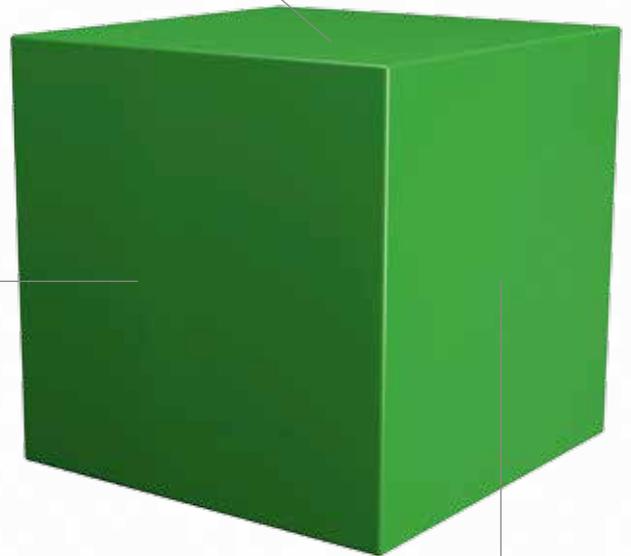
Foam hardnesses

- Soft: For fine process work, highlights and very fine lines
- Medium soft: For process work, brilliant halftones and fine lines
- Medium firm: For halftones and lines, a combination of solids, line work and screen
- Firm: For solids, lines, large fonts



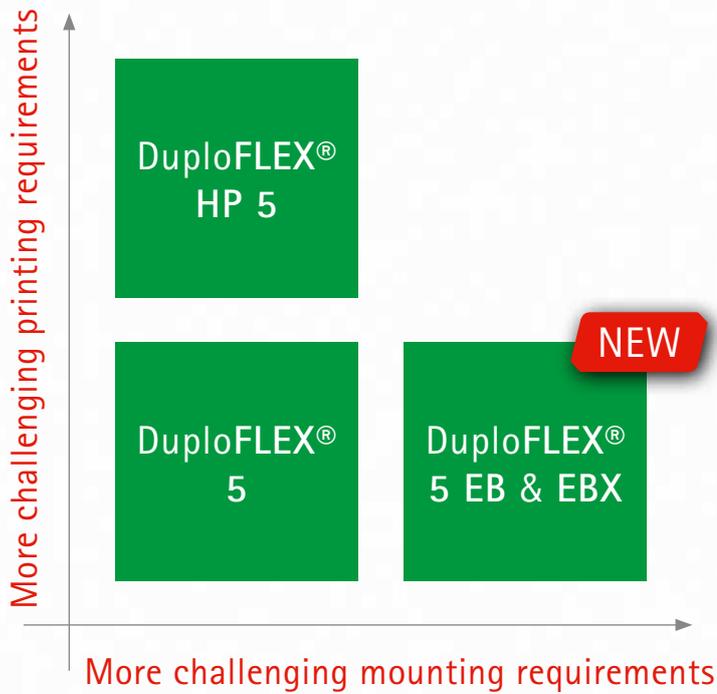
Adhesive formulation

- Classic adhesive formulation for standard mounting requirements
- NEW: Improved adhesive formulation EB & EBX for the best handling
 - Performs consistently in environments where temperature and humidity vary
 - More stable against solvents





Fine process work, brilliant halftones, perfect solids and fine lines, compatible with all high resolution repro system outputs - whatever print image you want to achieve, the DuploFLEX® 5 Cube System provides excellent results.



A reliable choice for every print job.

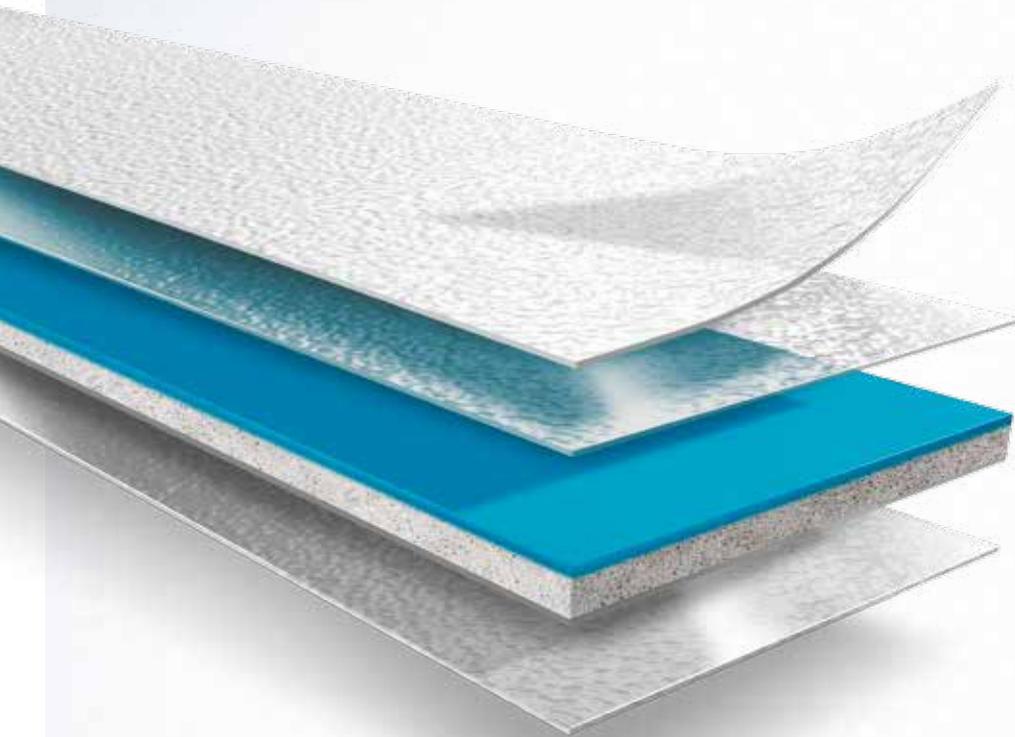
Regardless of whether you have to meet particularly high requirements in printing or during mounting, our well-established premium brand DuploFLEX® 5 Cube System is a reliable choice for every print job. You make your own choice, based on your individual requirements.

DuploFLEX® 5: The perfect basis

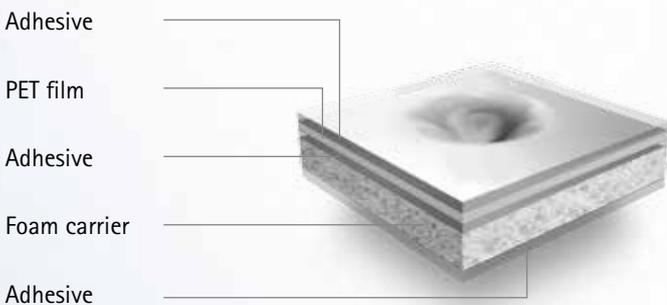
Double-sided flexible reinforcement provides quality advantage.

In contrast to conventional foam adhesive tapes with a laminated PET film, our DuploFLEX® 5 range is equipped with a double-sided flexible PE reinforcement. A significant construction feature which results in

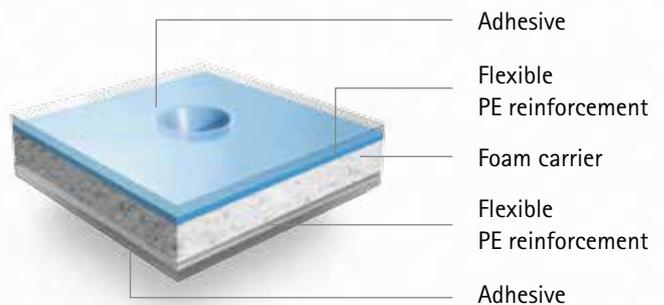
optimal print images. The forces acting upon the compressible foam are perfectly cushioned. The result: No uncontrolled dot gain and an excellent print image, even at high printing speeds (600 m/min).



Our innovative design feature prevents uncontrolled dot gain.



Conventional foam adhesive tape with laminated PET film.



The DuploFLEX® 5 range with double-sided flexible PE reinforcement which perfectly cushions the impression applied and prevents dot gain.

The benchmark for compressible plate mounting.

The high quality of our tape solutions is no coincidence. Every DuploFLEX® 5 adhesive tape includes the know-how of our experienced specialists. DuploFLEX® 5 has been especially developed for 0.55 mm flexo printing and offers all the advantages you could ask for: No plate lifting and uncontrolled dot gain, as well as residue-free demounting. This will give you competitive advantages.



DuploFLEX® 5: A solution-oriented selection of foam hardnesses and adhesive formulations for the entire 0.55 mm range.

The DuploFLEX® 5 product range consists of several compressible adhesive tapes that differ in terms of foam hardness and adhesive formulation. Choose our benchmark for compressible plate mounting and benefit from perfect print results.

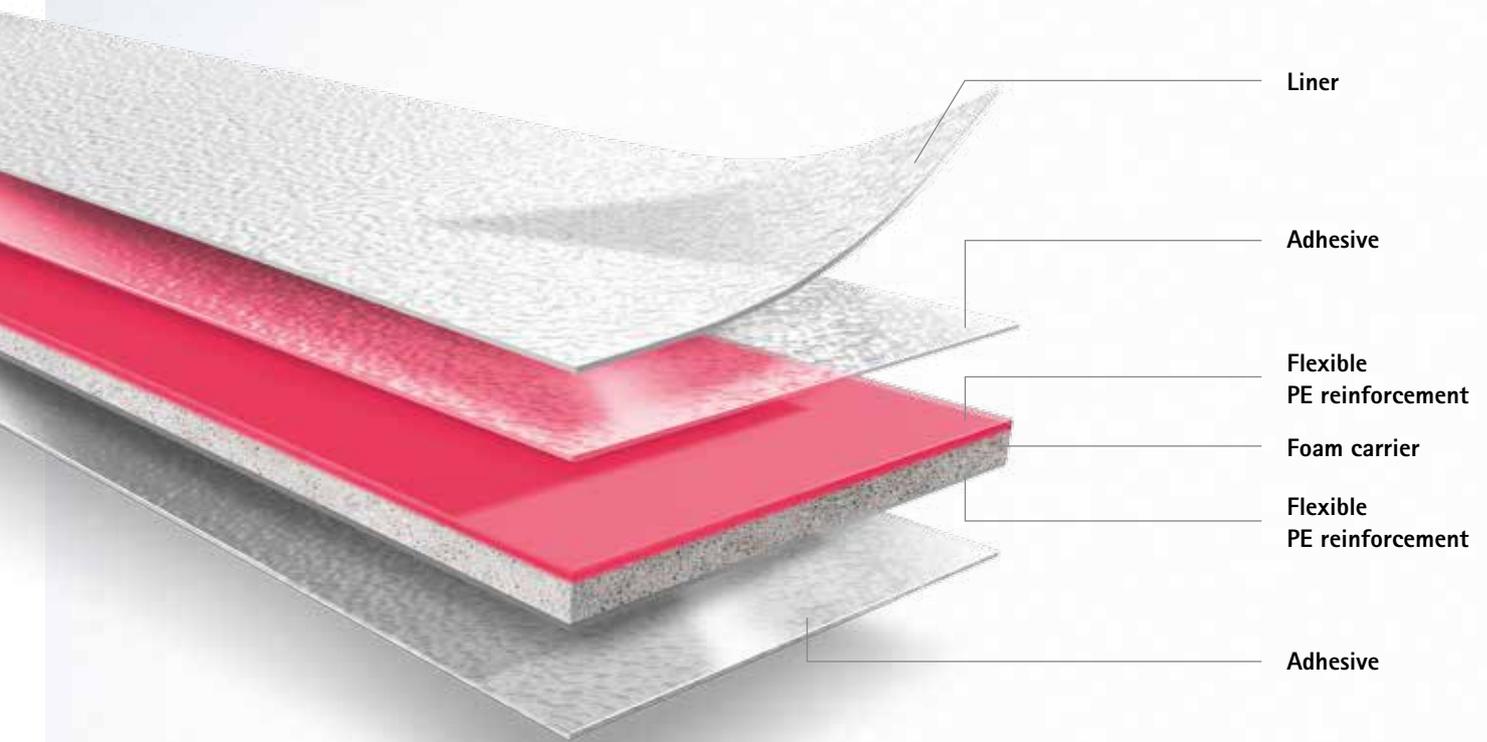
Desired print image	Foam	Adhesive formulation			
	Fine process work, highlights and very fine lines (minimized dot gain)	Soft	DuploFLEX® 5.1	DuploFLEX® 5.1 plus	DuploFLEX® 5.1 maxx
	Process work, brilliant halftones and fine lines	Medium Soft	DuploFLEX® 5.2	DuploFLEX® 5.2 plus	DuploFLEX® 5.2 maxx
	Halftones and lines, a combination of solids, line work and screen	Medium Firm	DuploFLEX® 5.3	DuploFLEX® 5.3 plus	DuploFLEX® 5.3 maxx
	Solids, lines, large fonts (dense ink coverage)	Firm	DuploFLEX® 5.4	DuploFLEX® 5.4 plus	DuploFLEX® 5.4 maxx

DuploFLEX® HP 5 for the most challenging print jobs

For your high-end print results.

What to do when looking to utilize every last percentage point and push the boundaries of what is physically possible? Like printing an even more natural skin tone onto a shopping bag. Or when particularly

long and quick print runs have to be realized at the same level of quality. Then DuploFLEX® HP 5 is the right choice.

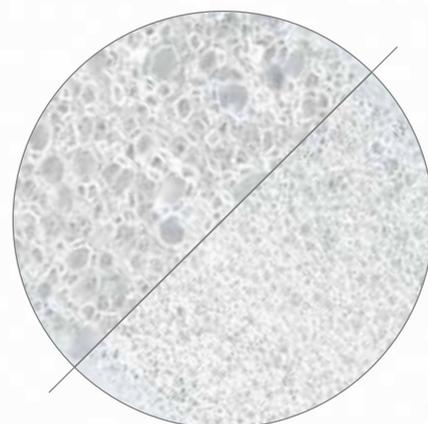


High-performance polymer foam for unrivaled stability.

Besides the double-sided flexible PE reinforcement on all products from the DuploFLEX® 5 Cube System, the DuploFLEX® HP 5 range has an additional advantage that makes all the difference. The high performance polymer foam, with its high level of uniformity and relatively small cell structure, offers excellent stability and ensures original shape resiliency.

It effectively counteracts machine vibrations, prevents vibration marks in the printed image and is particularly well-suited for long and quick print runs.

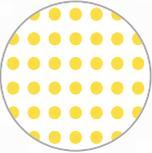
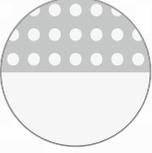
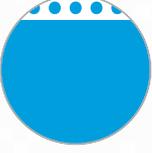
Standard polymer foam



High-performance polymer foam

DuploFLEX® HP 5: The perfect choice for long and quick print runs.

Do you also think that only the best will do? And do you strive for optimum color transfer, even at low dot densities? Then the DuploFLEX® HP 5 range is the perfect choice. This table provides an overview of those types of foam hardnesses that we recommend for achieving the desired print image.

Desired print image	Foam	Adhesive formulation
 <p>Fine process work, highlights and very fine lines (minimized dot gain)</p>	Soft	DuploFLEX® HP 5.1 plus
 <p>Process work, brilliant halftones and fine lines</p>	Medium Soft	DuploFLEX® HP 5.2 plus
 <p>Halftones and lines, a combination of solids, line work and screen</p>	Medium Firm	DuploFLEX® HP 5.3 plus
 <p>Solids, lines, large fonts (dense ink coverage)</p>	Firm	DuploFLEX® HP 5.4 plus



Best handling with DuploFLEX® 5 EB und EBX

The new adhesive formulation for very challenging conditions.

The DuploFLEX® 5 EB range combines all the advantages of the well-established DuploFLEX® 5 range with entirely new features: Highly consistent in terms of temperature and humidity variations as well as more stable against solvents.

EB stands for "Engineered Bonding", a newly developed and optimized adhesive formulation, which is suitable for these products. With the DuploFLEX® 5 EB range you can benefit from increased process reliability through changing conditions over the course of a year. For excellent handling and highest print quality at the same time.

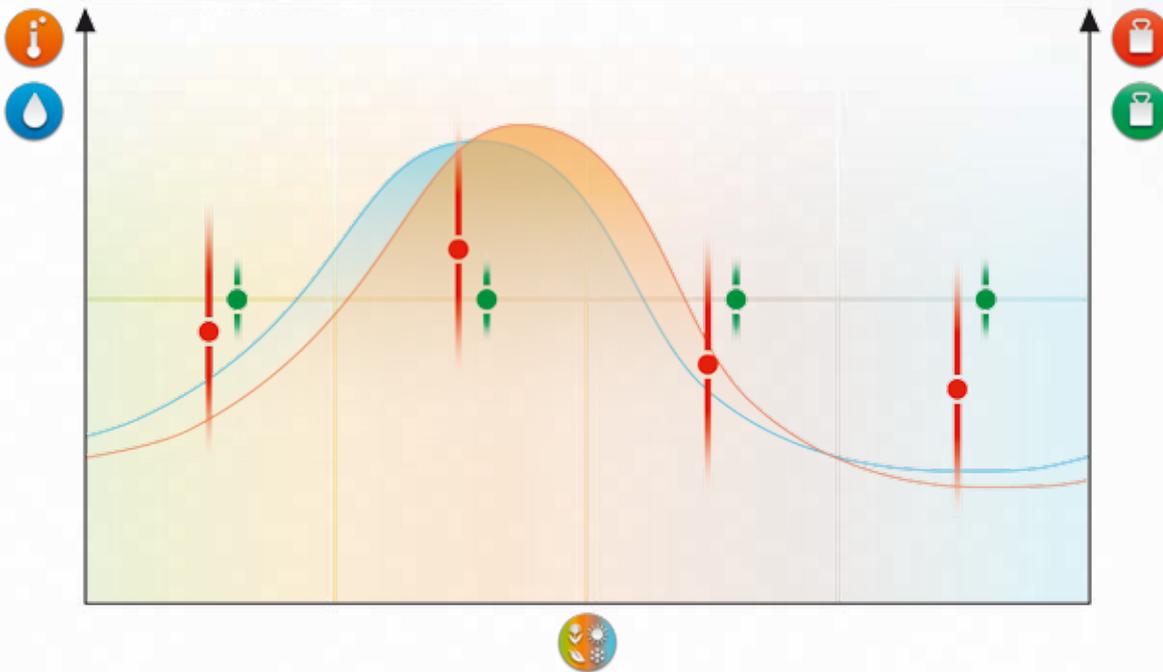


New
adhesive formulation



High consistency of performance in environments where temperature and humidity vary.

With the DuploFLEX® 5 EB range you have a competitive advantage, especially when it comes to temperature and humidity variations. The newly developed "Engineered Bonding" adhesive formulation enables you to use your plate mounting tape all year round with consistent performance.

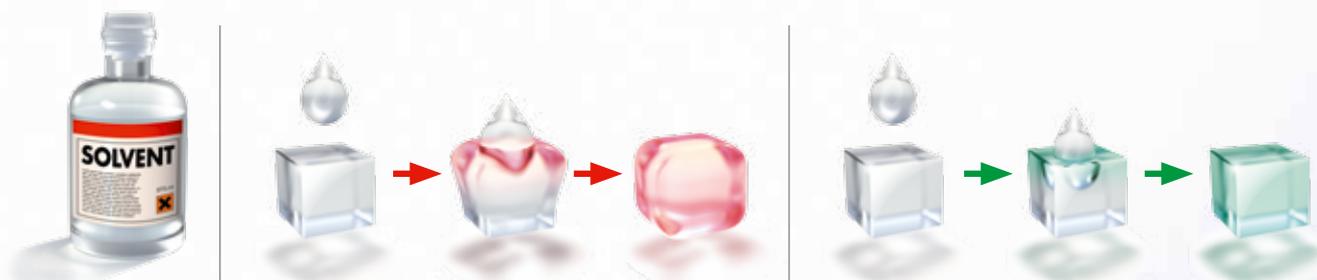


Temperature and humidity vary in the course of the year. In conventional foam adhesive tapes, adhesive strength sometimes deviates greatly from the optimum value (red dots in the diagram). DuploFLEX® 5 EB and EBX however, guarantee consistent adhesive strength throughout the year thanks to the newly developed adhesive formulation (green dots).

No more swelling and dissolving – for an efficient print process.

Due to poor solvent resistancy of some adhesive formulations, flexoprinters have to face two different problems: Either the adhesive swells, or it loses its adhesive properties when coming into contact with the solvent. Poor conditions for an efficient print process.

With the help of the highly solvent resistant "Engineered Bonding" adhesive formulation you can avoid plate lifting, adhesive residue on the sleeve and difficult demounting processes.



Contact with the solvent can lead to unwanted swelling of conventional adhesives.

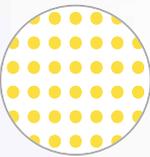
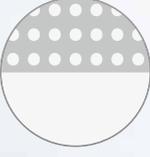
The greatly increased solvent resistance of the new adhesive formulation ensures that all of its positive characteristics are retained throughout the print job.



DuploFLEX® 5 EB and EBX: The new adhesive formulation available in all common foam hardnesses.

DuploFLEX® 5 EB and EBX are available in all common foam hardnesses from soft to firm and offer one thing above all: Excellent handling even under very difficult conditions. DuploFLEX® 5 EBX is the ideal solution for particularly challenging requirements (e.g. small cylinder circumferences or hard printing plates).



Desired print image	Foam	Adhesive formulation	
 <p>Fine process work, highlights and very fine lines (minimized dot gain)</p>	Soft	DuploFLEX® 5.1 EB	DuploFLEX® 5.1 EBX
 <p>Process work, brilliant halftones and fine lines</p>	Medium Soft	DuploFLEX® 5.2 EB	DuploFLEX® 5.2 EBX
 <p>Halftones and lines, a combination of solids, line work and screen</p>	Medium Firm	DuploFLEX® 5.3 EB	DuploFLEX® 5.3 EBX
 <p>Solids, lines, large fonts (dense ink coverage)</p>	Firm	DuploFLEX® 5.4 EB	DuploFLEX® 5.4 EBX

All your advantages at one glance

Whatever product you choose –
your competitive advantage is guaranteed.

Whatever the challenging requirements in mounting or demounting, our DuploFLEX® 5 Cube System combines unique specifications for individual advantages. You benefit from perfect print results even at high printing speeds in flexo printing - that's a fact.

NEW

	DuploFLEX® 5 range	DuploFLEX® HP 5 range	DuploFLEX® 5 EB and EBX
A compact product portfolio for all printing requirements	●	●	●
Excellent print quality ensured by Lohmann's unique double-sided reinforcement	●	●	●
Easy repositioning during mounting	●	●	●
No plate-lifting	●	●	●
No uncontrolled dot gain	●	●	●
Residue-free and easy demounting	●	●	●
Perfect bonding on different sleeve circumferences	●	●	●
Suitable for solvent- and water-based inks	●	●	●
Outstanding consistency due to high-performance polymer foam		●	
Particularly well-suited for long and quick print runs		●	
Wider operational window against bouncing		●	
Highly consistent in terms of temperature and humidity variations			●
Extended solvent resistance			●

We're always there where you need us

However you look at it –
your Lohmann FLEXperts are available to help anytime, anywhere around the world.

*»We know that every print job is different.
That's why we adapt flexibly to your individual
requirements.«*



*»Innovative products and technical advice
at the highest level are our strengths. That's the
reason why we are the global leader when it
comes to plate mounting tapes for flexo printing.«*

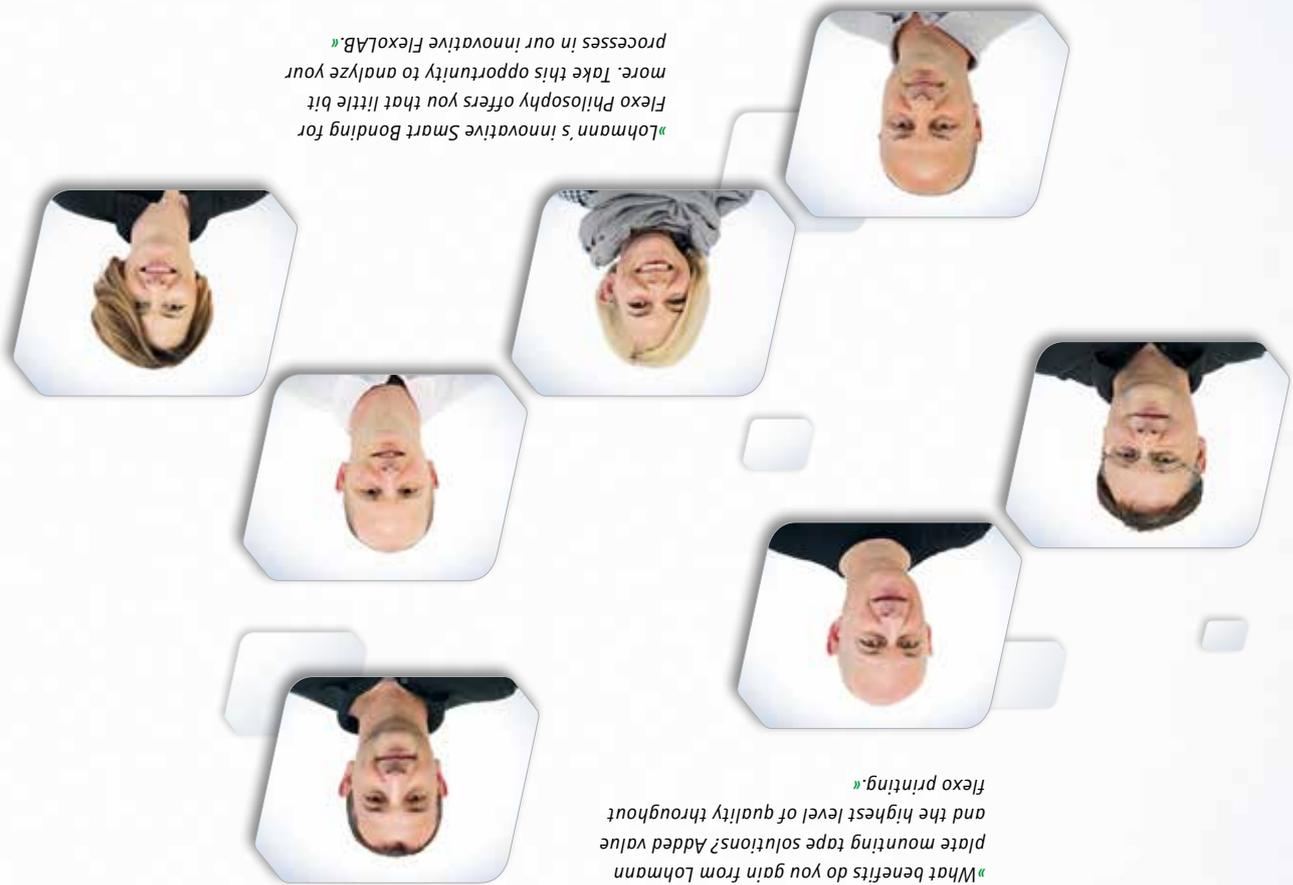
*»We want to do more than just sell you our
products - as your counterparts we want you
to benefit from our expertise.«*



We make the difference

However you look at it – your Lohmann FLEXperts are available to help anytime, anywhere around the world.

«What benefits do you gain from Lohmann plate mounting tape solutions? Added value and the highest level of quality throughout flexo printing.»



«Lohmann's innovative Smart Bonding for Flexo Philosophy offers you that little bit more. Take this opportunity to analyze your processes in our innovative FlexoLAB.»

«Wherever you are in the world, we can offer a personal consultation. And always on an equal footing.»



FlexoLAB

First simulate, then integrate. Our innovative FlexoLAB shows the major steps on a realistic scale and our mission: Testing, analyzing and optimizing to achieve the best print results for you.



The major steps perfectly shown with our unique print simulator.

You are invited to the innovative FlexoLAB in our Technology Center at the Lohmann headquarters. Our aim is to map out your process from A to Z, then simulate it in the FlexoLAB, so you can achieve the highest possible quality with the help of our customized solutions. This includes using a suitable cleaner for the sleeve, long-term testing or improving processing times, for example. The Lohmann FlexoLAB consists of a mounting machine and a print simulator – supplied and supported by our strategic partner TRESU and was designed for simulation and testing purposes.

The innovative print simulator offers the unique opportunity to adjust the relevant physical and mechanical parameters of a "real-life" print job. This makes it possible to predict print results. Consequently, we stay true to the Smart Bonding for Flexo Philosophy: Being at your side from the initial idea up to process integration and beyond.



The FlexoLAB and our FLEXperts are available at all times.

Print simulator

The print simulator of our strategic partner TRESU offers you the possibility to simulate the relevant physical and mechanical parameters of a "real-life" print job.

Technical Data

Cylinder circumferences	390 – 750 mm
Width	420 – 1300 mm
Speed	max. 600 m / min
Printing pressure	max. 10 μ m

Mounting machine

The mounting machine enables you and us to operate under real conditions and thus gives you the opportunity to analyze your process better.

Includes an adaptable and automatic roll pressure system, e.g.:

- Variable pressure
- Different hardnesses
- Various sizes

Different sleeve systems (like compressible and hard sleeves e.g.) in different sizes for wide and narrow web

DuploFLEX® Box

Do you want your entire mounting process to be as efficient as possible? Our DuploFLEX® Box offers everything you need. With practical tools for optimum mounting of print jobs.





Cleaner: Perfect cleanliness in plate mounting.

Supreme cleanliness is vital during the mounting process, as it ensures a smooth workflow of the printing operation and optimized print results. In order to safeguard the best possible adhesion of the tape and the plate, any trace of grease, dust or ink should be avoided. Clean both the sleeve and the plate prior to mounting, e.g. with an isopropanol-water mixture.



Cutmaster: Perfect cuts for perfect results.

The adhesive tape can be cut to size with a sharp knife and the Cutmaster. Align it with the connecting edge of the mounting tape and trim off the overlapping adhesive tape using a sharp knife along the upper edge of the Cutmaster. Now you can easily remove the overlapping adhesive tape along the edge of the Cutmaster.



Roller: For bubble free mounting.

The tape and the plate can be mounted bubble free onto the sleeve by using the roller from the DuploFLEX® Box. Make sure to apply sufficient pressure to both tape and plate, especially on the edges.



Optional for critical jobs: Primer and DuploFLEX® 3115.

Pre-treating the plate edges with a primer optimizes the adhesion and thus avoids so-called edge lifting. Alternatively, you can use our unique single-sided adhesive tape DuploFLEX® 3115 as the easiest and safest way to protect the plate edges.

DuploFLEX® Portfolio

Individual printing requirements demand unique solutions. We offer the suitable product for every application. For excellent print quality, efficient processes and the best handling.



High process reliability thanks to consistently high product quality.

Quality without compromise is worth it, particularly when it comes to quick, complex and longer print jobs. Your advantage with Lohmann: Today we manufacture plate mounting tapes and compressible bases with tolerances in thickness to the micrometer, using the technical expertise of our own product development and the most innovative

production processes. Outstanding and certified quality. A label in the rolls' core informs you about the thickness of every individual DuploFLEX® foam product. Your benefit? An ideal workflow and - as a result, the best conditions for greater process reliability and perfect print results.

DuploFLEX® 3 and 4 for label printing.

A frequent change of images, a large number of different types of content and information on the label, as well as complex designs - the label printing industry faces all these challenges. For printing labels, the Lohmann DuploFLEX® 3 and 4 ranges offer a wide selection of plate mounting tapes for the highest quality.

DuploFLEX® 5 Cube System for flexible packaging printing.

The DuploFLEX® 5 Cube System meets the increased requirements in packaging printing: With a wide selection of adhesive tapes with different foam qualities, adhesive formulations and foam hardnesses, for exceptional results even at long and quick print runs.

DuploFLEX® CB for high quality post print.

The only way to move forward in high quality post print is to permanently optimize processes and quality. After all, packaging does so much more than just basically protecting. Whether you're looking for an eye-catching feature or a hands-on experience at the point of sale, DuploFLEX® CB is the right product to help you achieve your goals.



Personal advice

We, the Lohmann Bonding Engineers, are **FLEXperts** for the entire flexo printing process. Together we **analyze** your requirements, give the **right recommendations** and find the **best solution** for you. At any time, worldwide.



Our technical know-how - your benefit.

One of the essentials for an efficient printing process is to know exactly how, where and under what conditions which plate mounting tape shall be used. This is where the experience and know-how of the Lohmann FLEXperts comes into play: We analyze your requirements in detail and find the right solution with the right parameters.

You can rely on our high quality and well-established DuploFLEX® Portfolio. But our advice goes even further. We support you anytime and worldwide regarding all questions you may have concerning your process.

*»Why are we FLEXperts?
Because we support you
as a qualified partner in all
questions regarding the
whole process.«*



We optimize your process

With personal advice, individual solutions and an innovative premium service.

Against the backdrop of a steadily growing packaging industry, flexo printing has established itself in recent decades as a globally successful technique in relief printing. But there is also a great deal of competitive pressure. Complex print jobs, increasing quality demands and narrow time frames are forcing many printing companies to further optimize their production processes.

To benefit from your decisive advantage, Lohmann, as a qualified partner, is at your side – from the first idea to process integration and beyond: Anytime and worldwide. This is what Smart Bonding for Flexo stands for – optimized processes covering the entire range of flexo printing.



Personal advice

Personal advice throughout the entire process and beyond:

- At any time and worldwide
- Analyze requirements
- Make recommendations
- Identify solutions



DuploFLEX® Portfolio

The right plate mounting tape for every application in flexo printing:

- Flexible packaging
- Labels
- Corrugated board



DuploFLEX® Box

Practical mounting tools for more efficiency:

- Cleaner
- Cutmaster
- Roller
- Primer etc.



FlexoLAB

Our testing facility for better printing:

- Simulates "real-life" printing processes
- Print simulator
- Modern mounting machine



Smart Bonding for Flexo

More than just plate mounting tapes - designed for individually optimized processes and excellent quality.