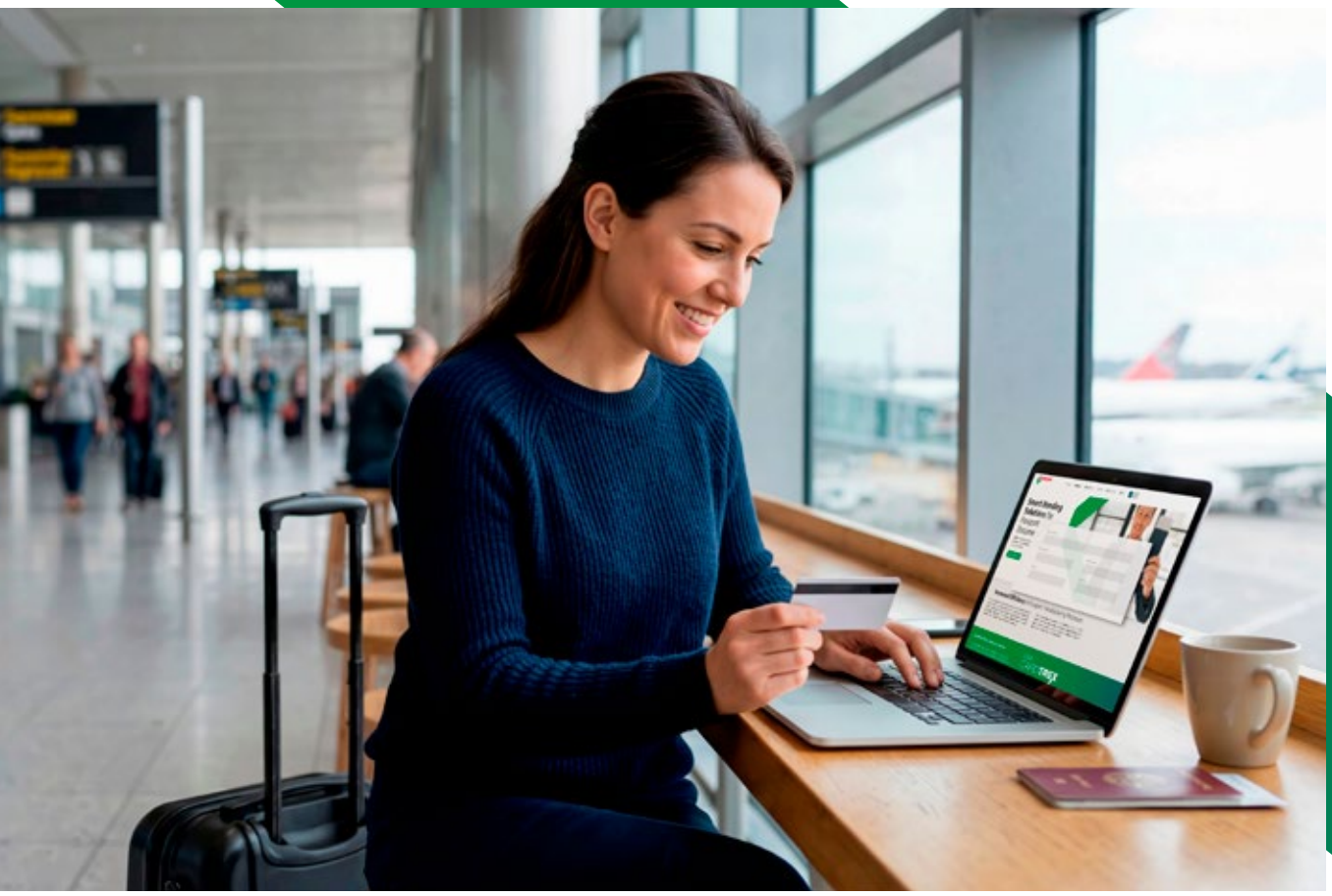


Smart Bonding Solutions for Secure Documents

Structural bonding technology for manufacturers of smart cards & ID documents

High-Tech Adhesive Tape Solutions for Smart Cards and ID Documents

Reliable and tamper-proof thermoset adhesive portfolio

Security printers and smart card manufacturers must continuously raise their security standards to protect passports, ID cards and smart cards against counterfeiting, tampering and unauthorized access. Lohmann's thermoset adhesive tapes reliably bond all layers - from cover pages and inlays in passports to security features and chips in smart cards - delivering tamper-proof performance for the most demanding applications.

Our key driver is „Achieving more while using less": solutions that optimize resource usage while making manufacturing leaner through higher energy efficiency and shorter cycle times. Our tapes allow pre-application at lower temperatures, stay flexible after curing without embrittling, and offer outstanding mechanical durability.

DuploTEC SBF adhesives also support more sustainable product designs by bonding reliably to recycled and alternative materials such as Parley Ocean Plastic®, PLA, rPet-G, rPVC, and wood, helping customers reduce their environmental footprint. In addition, these adhesives provide excellent adhesion to the established substrates widely used in the security printing and identity document market, including polycarbonate (PC), PET, synthetic materials, and various cover materials. This broad substrate compatibility enables manufacturers to combine sustainability goals with the high performance, durability, and security standards required for demanding applications.

With our global network of experts, we support you locally – technically and commercially – to find the perfect bonding solution.

Responsible Solutions in Every Bond

Achieving more with less is also reflected in our global sustainability strategy. As pioneers of adhesive bonding technology, we have been creating sustainable connections for over 175 years – as a driver for future technologies together with our development partners.

Our sustainability strategy focuses on reducing emissions, using renewable energies and biobased raw materials, circular economy, waste avoidance, sustainable packaging, and targeted investment in technical innovation.

GOLD | Top 5%
ecovadis
Sustainability Rating
AUG 2026



Co-Creation is the Best Way to Bond

We help manufacturers of cards & ID documents to “Achieve more with less”

By forming partnerships with our customers we create solutions that are beneficial to all parties. Our adhesive solutions encompass a wide range of products, including overlay coatings, spine tapes, hinge support, die-cuts for films and adhesives, and security features within the adhesives themselves.

ACHIEVE

- Chip bonding
- Card / inlay lamination
- Passport cover lamination

MORE

- Efficient
- Sustainable
- Material combinations
- Recycled materials
- Security features

WITH

- DuploTEC SBF
- Thermoset
- Electrical conductivity

LESS

- Energy
- Temperatures
- Time
- Risk
- Costs

Strong Bonds. One Partner.

High-tech solutions from a single source

Polymerization
In-house production of high-performance homopolymers – the foundation of every Lohmann adhesive.

Formulation
We tailor adhesive properties – flame retardancy, light protection, plasticizer resistance – to your application.

Coating
Acrylic, rubber-based or reactive adhesives applied via solvent, water-based or hotmelt systems.

Converting
Coated materials converted into rolls, spools or sheets in your desired dimensions. Thanks to our global network we deliver consistently and close to your market.

Laminating
Diverse materials laminated into adhesive constructions tailored to your application.

Die-cutting
Our competence centers operate flatbed and rotary die-cutting machines, full metal dies, laser plotters – and even clean room environments. Ultra-fine die-cuts, from 0.2 mm holes to roll-to-roll “laser-on-the-fly” solutions.

Testing
Every product tested for bonding strength, environmental resistance and functional reliability.

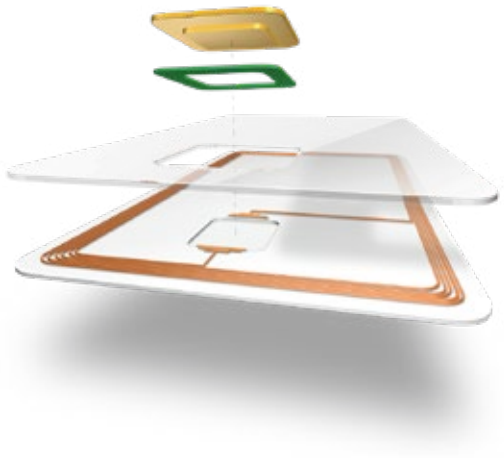
Applying
Manual to fully automated application support, engineered to fit your production.

Pick & Place
Bonding meets automation: Integration of Lohmann adhesive systems into automated, scalable processes.

Reliable Bonding on Eco-Friendly Card Materials

Chip and sensor bonding for smart cards

The DuploTEC SBF product range provides reliable and secure solutions for chip and sensor integration in smart card manufacturing, including payment cards, biometric sensors and Electronic Card Security Codes.

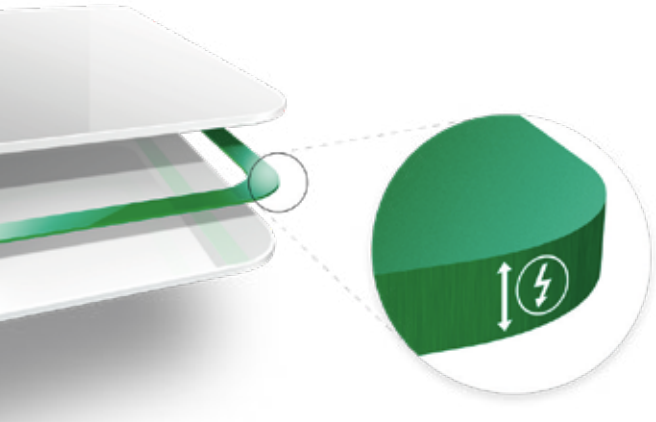


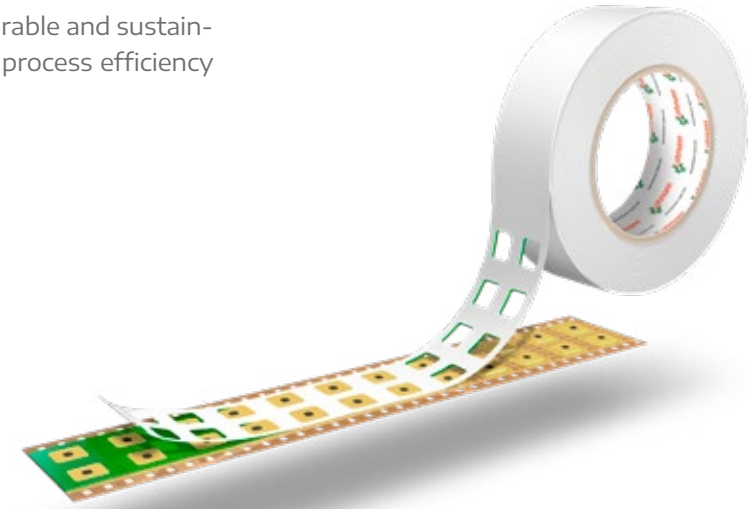
Designed for demanding applications and most card materials such as rPVC, rPETG, PLA and Ocean Plastic-based substrates, the SBF technology enables efficient production processes with low activation temperatures and high flexibility after curing. In addition, it meets Mastercard Card Quality Management (CQM) requirements and complies with all relevant ISO standards.

To address varying application and process requirements in smart card production, DuploTEC SBF is available in two product variants:

- A non-conductive version providing strong and reliable mechanical bonding for chip embedding and component integration.
- An anisotropic electrically conductive version, offering secure electrical conductivity exclusively in the z-direction for reliable chip-to-antenna and sensor connections.

Both variants support the production of high-quality, durable and sustainable smart cards while helping manufacturers optimize process efficiency and product reliability.





Efficiency

- Easy to integrate into existing processes
- Lower activation temperatures in comparison to traditional hotmelt tapes
- Suitable for many material combinations – one tape for all card materials
- High conductivity enables biometric sensor functionalities

Quality & Security

- High flexibility after curing
- High and reliable conductivity in the z-direction
- Outstanding durability
- Material protection due to low adhesive activation temperature
- Secure and reliable connection

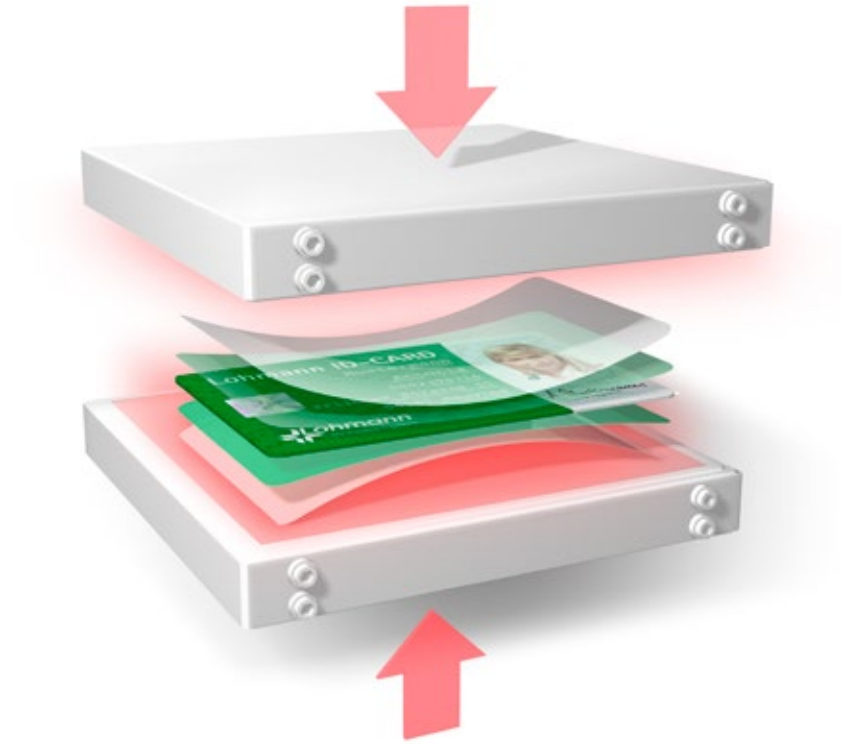
Sustainability

- Very good performance on halogen-free materials (such as Parley Ocean Plastic®, rPETG and PLA) or rPVC
- Solvent free
- Energy saving due to low activation temperature

Smart card body manufacturing solutions

The manufacturing process of the card body involves the lamination of the physical substrate, which can be PVC, polycarbonate, or many other materials, prior to the addition of the contact module or personal data. It establishes the structural foundation for financial, ID, and access cards.

Lohmann's tape solutions can bond a wide variety of substrates, enabling novel material combinations to be developed and opening up new possibilities in card design. This technology offers greater flexibility in card construction and facilitates the realization of advanced hybrid card concepts — a rapidly growing market segment that combines the advantages of different materials within a single card body.



Efficiency

- Easy to integrate into existing processes
- Realization of hybrid card constructions
- Customized adhesive formulations possible
- Toll-coating as well as sheet and roll convertings

Quality & Security

- High flexibility after curing
- Outstanding durability
- Material protection due to low adhesive activation temperature

Sustainability

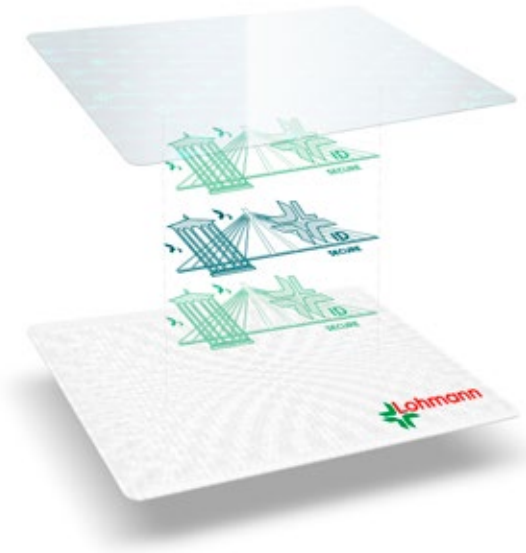
- Very good performance on most card materials
- Solvent free
- Energy saving due to low activation temperature

Increased Efficiency in Passport Manufacturing Processes

High-security credential components for passports & ID documents

As governments strengthen security standards for passports, ID cards and other credentials, the demand for advanced, tamper-proof components is growing. These applications require security features that are easy to verify yet impossible to replicate, and also can be integrated seamlessly into increasingly complex document designs.

At the same time, new material combinations and hybrid constructions require highly engineered bonding solutions that combine adhesives, coatings, die-cutting and application expertise.





Efficiency

- Roll-to-roll ready
- Easy to integrate into existing processes
- Co-creation of tailored bonding solutions, including customized adhesive formulations, geometries, and functional features - perfectly aligned with each document design and according to country-specific requirements

Quality & Security

- Enabler for advanced anti-counterfeiting features including options with planned UV fluorescence
- Extremely thin adhesive layers (down to 5 µm and below) supporting fine structures, minimal tolerances, and modern credential designs
- Digital high precision die-cutting and converting to supply ready-to-use formats that fit into your document layouts
- Strong and durable bonding on multi-layer constructions and advanced material combinations, including polycarbonate, paper, and sustainable substrates

Sustainability

- Compatibility with recycled and bio-based materials
- Energy saving due to low activation temperature
- No solvent aspiration required
- Less material waste as potting time is no longer required

Cover page and inlay bonding



Our adhesive tapes include a highly flexible, thermoset adhesive layer optimized for high-speed roll-to-roll processes. This allows our customers to achieve their production goals while maintaining the highest standards of security and quality.

The efficiency of the cover page lamination process is enhanced, while at the same time the typical disadvantages of liquid bonding are eliminated. The DuploTEC SBF range is user-friendly, roll-to-roll ready, compatible with new material combinations, and offers a high flexibility after curing as well as an outstanding durability.

Efficiency

- Immediate adhesive strength allows quick processing, storage time is no longer required
- Shortest machine setup as no need for cleaning
- Roll-to-roll ready
- Easy to integrate into existing processes
- Suitable for many material combinations, e.g. PVC, PC, PPG TESLIN®, Neobond®, PETG and paper

Quality & Security

- High flexibility after curing
- Outstanding durability
- Material protection due to low adhesive activation temperature
- Highest security and quality standards

Sustainability

- Energy saving due to low activation temperature
- No solvent aspiration required
- No pot life limitations, resulting in reduced material waste

Smart Bonding Solutions for the Perfect Fit

Customized solutions and co-creation for secure documents



With our Smart Bonding Approach, we turn your ideas into high-performance bonding solutions through close collaboration – backed by deep expertise in materials and processes.

The result: advanced security features and next-generation concepts for security documents, with greater flexibility in design, new material combinations, and support for modern hybrid card concepts.

Lohmann offers a wide range of customizable adhesive solutions and can directly equip customer-specific substrates with adhesive and convert the product in one step.

The perfect bonding solution?
The one tailored to your application.
We support you **from the idea** to its integration **into your process.**

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