

Product handling manual – chip implanting

DuploTEC SBF® – structural bonding solutions for secure documents

In order to safeguard sensitive information incorporated in smart cards and security documents against counterfeiting, tampering and unauthorized access, Lohmann offers state-of-the-art high-tech adhesives and adhesive tapes. These reliable and tamper-proof thermoset bonding solutions help to combat counterfeiting and increase efficiency during the lamination process while realizing new security features.

We provide solutions that enable our clients to achieve their objectives while optimizing resource usage, creating leaner manufacturing processes, increasing energy efficiency and reducing cycle times.

“Doing more while using less” is a key driver for success.

We help card manufacturers

- ✓ to create secure and reliable connections between chip modules and antennas
- ✓ to remain competitive by reducing energy costs and increasing output
- ✓ to reduce the environmental footprint by using Lohmann's solvent-free adhesive products that are activated at low temperatures and especially designed to be processed with recycled materials

We do this by providing a solvent-free thermoset transfer film that is easy to use and can be electrically conductive in the z-direction. This film can be used on in-use equipment, making it an efficient and cost-effective solution for any card manufacturer. It comes with a high flexibility after curing and does not embrittle. With DuploTEC® SBF, card manufacturers can reduce their environmental footprint while still creating high-quality smart cards.



At Lohmann, we understand the importance of reducing environmental impact, and that's why we especially developed our products to be used with recycled materials.



Processing instruction

Product name		DuploTEC® 12410 SBF	DuploTEC® 12420 SBF EC
Substrates to bond		Dual interface / smartcard and fingerprint sensor modules	
		Card substrates (e.g. PVC, PC, PLA, PET-G, PET-A, R-PVC)	
Standard width [mm] / length [m]		29 mm x 200 m	
Thickness [µm]		40	65
Type of adhesive		Latent reactive polyurethane	
		Non-conductive	Conductive Silver-plated aluminium particles
Electrical resistance [mΩ / mm ²]		–	≤ 200 mΩ / 0,25 mm ² ≤ 100 mΩ / 1,00 mm ²
Prelamination conditions	Temperature [°C]	50 – 60	50 – 60
	Time [sec]	1.5 – 5	1.5 – 5
	Pressure [N / cm ²]	15 – 50	15 – 50
Main implanting conditions	Temperature [°C]	120 – 180	120 – 180
	Time [sec]	0.6 – 5	0.6 – 5
	Pressure [N / cm ²]	50 – 150	50 – 150
Storage conditions		Below +35 °C at humidity level of 50 – 70 % r. h.	
Shelf life		12 months after production	
The process parameters are dependent on the used card materials / chip modules as well as on the processing machine.			

The physical characteristics contained in this data sheet represent typical or average values. All application related statements, information and recommendations herein are given to the best of our knowledge and practical experience. Many factors beyond our control and uniquely within buyer's knowledge and control can affect the use and performance of our tape in a particular application. EXCEPT AS EXPRESSIVELY AGREED IN WRITING WE DO NOT TAKE OVER ANY WARRANTY OR LIABILITY FOR THE SUITABILITY OR USABILITY OF OUR TAPES FOR CERTAIN PURPOSES AND APPLICATIONS RESULTING FROM BUYER'S SPECIAL USAGE OF THE TAPES: EXCEPT WHERE PROVIDED BY MANDATORY LEGAL PROVISIONS; WE WILL NOT BE LIABLE FOR ANY DIRECT OR INDIRECT MATERIAL OR IMMATERIAL LOSSES OR DAMAGES ARISING FROM THE USAGE OR APPLICATION OF OUR TAPES. Solely the buyer is responsible for determining the suitability of the specific tape for its use in connection with his method of application. Please consult our Technical Applications Department for specific advice.

Interested in finding out more on bonding solutions for smart cards & security applications?

Please visit our website or get in contact with us:

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