

Diagnostics

Accurate, Consistent, Reliable

Lohmann formulates, manufactures, coats and die-cuts adhesive solutions that have been used as component parts of clinical and point of care diagnostic products for over 20 years. By meeting the specialty demands of the diagnostics market, such as functionality, reliability and processability while adhering to very tight process tolerances, Lohmann has become a trusted industry partner. Whether a custom design or standard product, Lohmann can provide innovative products that are precise, stable, non-reactive and non-migratory.

Lab-on-Chip

Minimizing the “lab” does not minimize the requirements: by uniting state-of-the-art electronics and chemistry to provide diagnosis and prognosis in a portable cost effective platform present demanding challenges for membranes, films and adhesives such as optical clarity, flexibility or rigidity and contact angles to control fluid paths and fill times.

Lohmann combines its knowledge of adhesive development and raw materials with its comprehensive die-cutting capability to support manufacturers of lab-on-chip devices to develop and enhance their products with ever increasing functionality and performance.

Lateral Flow Tests

While lateral testing has been around for decades, the COVID-19 pandemic has brought this diagnostic test to everybody's awareness. These tests need to be easy to use and accurate in order to deliver fast, accurate qualitative results for a vast and growing range of applications. To ensure this, adhesive materials must be able to bond to a wide variety of membrane materials while not reacting with antibodies and reagents used in the test itself. Lohmann can formulate adhesives to cater for these differing requirements and ensure that the downstream production processes

are efficient with minimal cleaning intervention required. Products can be supplied in sheet or roll form laminated to a variety of backing cards with or without customised kiss-cut locations.

Biosensors

Some users rely on these test strips several times per day for vital information in order to dose medication; others might just use them very occasionally for common health checks. To ensure the accuracy and consistency required for these tests, adhesive materials must be ooze-free, inert and manufactured to within very tight thickness tolerances.

Lohmann adhesives and tapes are formulated to meet these high demands combining stability and compatibility to test assays with properties such as optically clear, hydrophilic or electrically conductive.

Molecular Diagnostics

The broad collection of analytic technologies used in Molecular Diagnostics leads to a wide range and unique combination of requirements. Whether the application requires a barrier against evaporation or cross contamination during analysis, a covered yet breathable environment, low birefringence and autofluorescence, optical clarity,



light occlusive or allowing samples to be stored safely at low temperatures, the demands on adhesive tapes are many.

Adhesive tapes supplied by Lohmann can be designed to meet one or a number of these application requirements. They can be supplied in rolls, for automated processing, or die-cut with additional features incorporated.

Sustainability

The new Lohmann lateral flow backing card material, made from Ahlstrom's recyclable cellulose-based material (ReliaCard), offers a sustainable alternative while maintaining performance. Paired with Lohmann's standard GL-187 adhesive and a release liner, its thickness and stiffness are comparable to the traditional polyolefin card.

With 90 % of the total material derived from cellulose, this eco-friendly card significantly reduces CO₂-emissions, contributing to a more sustainable future. The GL-187 adhesive, already validated for LFIA applications, ensures a seamless transition from fully oil-based materials to greener alternatives allowing for an easy, low-risk switch to a more environmentally conscious solution.

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



Integrated Innovative Solutions

As a world leader in the development, manufacture and supply of adhesive tape solutions, Lohmann is a trusted partner for the design, scale-up and commercialization of your medical device.

Our “local for local” approach together with a fully integrated supply chain gives Lohmann a truly unique position and one which our customers appreciate as real added value to their business.

At Lohmann we have an in-depth knowledge and capability in many chemistry platforms, including acrylic, synthetic rubber, silicone, cyanoacrylate, epoxy, and polyurethane. Our experience in coating solvent, water-based, hot-melt and multi-component reactive systems ensures that we are never restricted in our ability to develop and deliver customers with the best solution for their application.

By choosing Lohmann as their partner our customers have access to a highly specialized, experienced and effective Medical team who together with the Lohmann organisation can offer:

- a dedicated project management team
- experience of sourcing, developing and processing high-value functional materials
- a broad die-cutting capability including roll-to-roll flat-bed, rotary, pick-and-place and laser-on-the-fly
- expert in-house testing equipment and test method development
- product development and validation processes tailored to customers requirements
- to supply small quantities to support scale-up
- robust, well documented, traceable and fully auditable processes in accordance with EN ISO 13485 Quality Management System

Interested in finding out more on Bonding Solutions for Diagnostics?

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