



## Displays

The future is bright and colorful —  
Bonding Solutions by Lohmann.



# Your reliable partner for smart and safe bonding solutions for the Electronics Industry

**We are at your side throughout the entire duration of your projects.**

As a globally active company with regional locations we see ourselves as your partner. With our international team we are always close to you. Through individual suitability tests in our Bonding Arena®, our application engineers will find the right product for your requirements. In dialogue with you, we jointly create the design of adhesive solutions. These are then produced by our specialists at our own locations – whether as die-cut parts, rolls or sheets. Your manufacturing process is the focus of attention.

We would be happy to provide you with additional support in integrating our bonding solution into your process – from simple applicators to complex concepts for your production line.

Good project and quality management are a matter of course for us.

We offer the entire value chain of double-sided adhesive tape production – from a single source.



R & D of adhesive



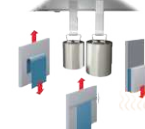
Coating



Converting



Die-cutting



Testing



Assembly support

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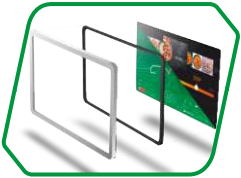
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# Display

## Overview Display.

### Damp & Seal

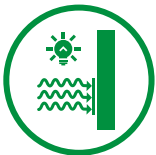
Dust & Humidity



Noise-Vibration-Harshness



Light Blocking



### Protection

ESD Protection



Surface Protection

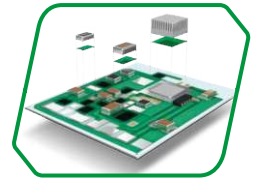


### Thermal Management

Backlight LED



Cooling Element

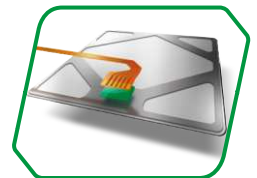


### Electrical Management

EMI Shielding



Grounding

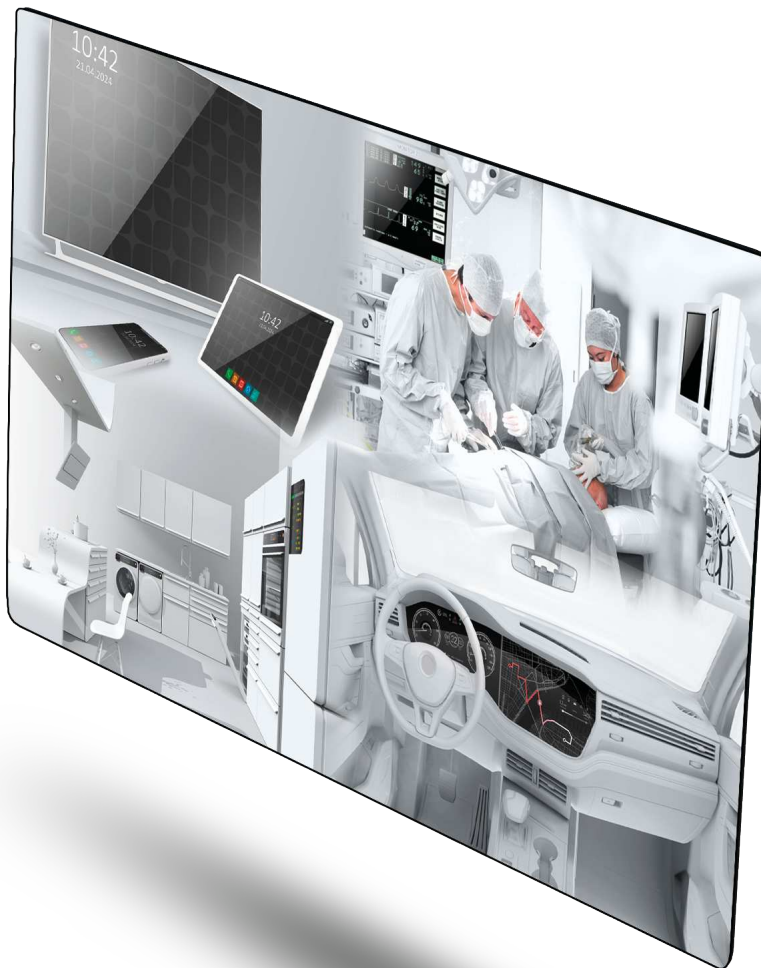


### Bonding

Optical Clear



Fixation



# Application in detail

## Damp & Seal

### Dust & Humidity

Closed-cell PE foams or PU foams guarantee a tight sealing against dust and humidity over the lifetime of the component.

The foam tapes absorb vibration and compensate different expansion coefficients of the substrates that are joined.

### Features

- Excellent converting and die-cutting properties
- High resistance to temperature, ageing, UV-radiation and weathering
- Excellent resistance to solvents and plasticizers

### Products

- DuploCOLL® 54XXX DS Range
- DuploCOLL® 930 Range



## Noise-Vibration-Harshness

Anti-noise and mechanical protection are getting more and more important, especially in cars and portable devices.

Customized solutions with PU, PE or EPDM foams and a variety of acrylic adhesives can be created according customer requirements.

### Features

- Excellent die-cutting properties
- Efficient protection against abrasion
- Good adhesion on a broad variety of substrates

### Products

- DuploCOLL® 21003 FL
- DuploCOLL® 54XXX DS Range



## Light Blocking

The dark-colored tapes help to minimize light scattering and ensure a high-contrast display.

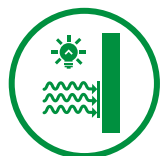
DuploCOLL® 28970 EC combines the light blocking characteristic with the EMI shielding property.

### Features

- Excellent light blocking
- Outstanding converting and die-cutting properties

### Products

- DuploCOLL® 28970 EC
- DuploCOLL® BLK Range



# Thermal Management

## Backlight LED

Thermal management is crucial in the production of LEDs and for its lifetime as thermal overstress can even lead to malfunctions and early breakdowns. Thermally conductive adhesive solutions support the dissipation of heat and minimize the heat in and around the LED.

### Features

- Environmentally friendly, no outgassing
- No additional fixing materials necessary
- Excellent die-cutting properties
- Free of silicones, halogen-free, flame retardant
- Thermal conductivity about 1 W/mK

### Products

- DuploCOLL® TC Range



## Cooling Element

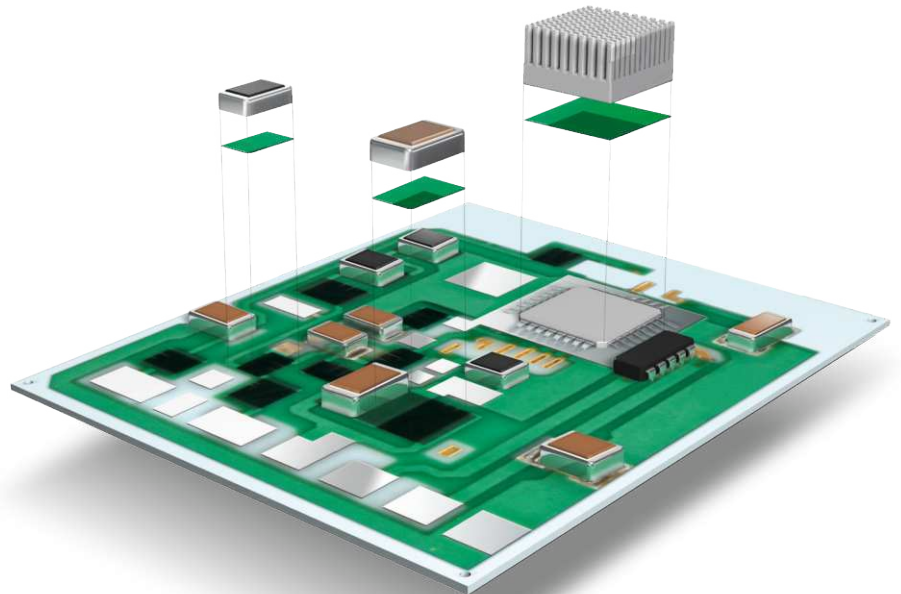
For an efficient thermal management that prevents malfunctions caused by thermal overstress and helps cooling or heating of electronic devices, a sufficient connection of the cooling element is necessary. Thermally conductive adhesive tapes are able to build up a contact to both substrates in the full area.

### Features

- Environmentally friendly, no outgassing
- No additional fixing materials necessary
- Excellent die-cutting properties
- Free of silicones, halogen-free, flame retardant
- Thermal conductivity range 1 W/mK

### Products

- DuploCOLL® TC Range



# Electrical Management

## Grounding

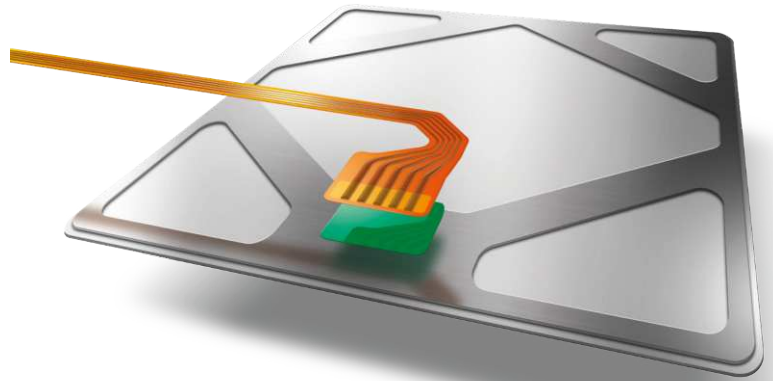
Electrically conductive tapes for grounding lead to an equipotential compensation in the electronic component, that is essential to avoid interfering signals that could lead to sensor damages. Bonding and conduction in one step: the use of an electrically conductive tape makes an additional connecting wire unnecessary.

### Features

- Connect low current circuits
- Easy to die-cut and apply
- Isotropic or anisotropic conductive

### Products

- DuploCOLL® EC Range



## EMI Shielding

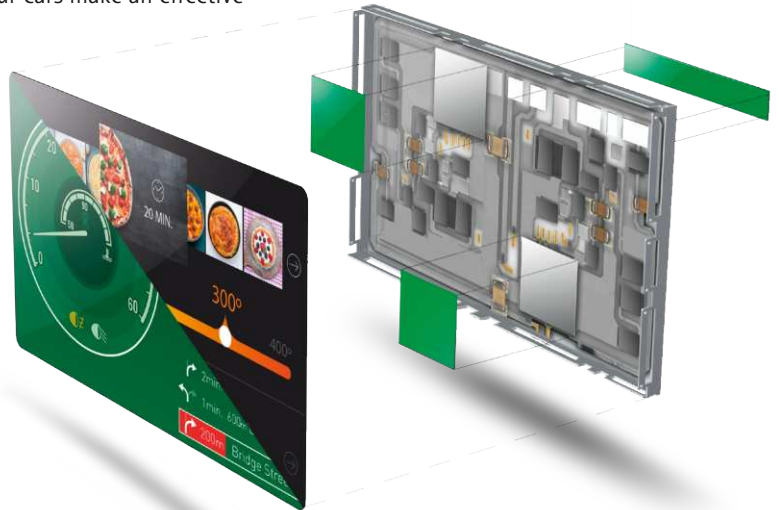
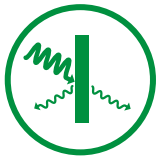
Electromagnetic waves can create voltage or electricity in circuits. This can cause disturbance, reduced performance or even lead to malfunction of an electronic component. The use of more and more electronic devices in households, for medical purposes and also in our cars make an effective electromagnetic shielding indispensable.

### Features

- Easy to die-cut and apply
- Isotropic conductive
- Bonds to low surface energy materials
- Excellent shielding properties against electromagnetic waves

### Products

- DuploCOLL® 28970 EC
- DuploCOLL® 28940 EC



## Protection

### ESD Protection

Anywhere touch displays are used, they need protection against electrostatic discharge. ESD mostly leads to „pre-damage“ in electronic, which will fail later in the field, when in use at the customer.

### Features

- Removable without residues
- Due to antistatic adhesive electrostatic discharge is avoided

### Products

- DuploCOLL® 31430 AS



### Surface Protection

This product range offers temporary mechanical protection of sensitive surfaces during storage, production, processing and transport.

### Features

- Removable without residues
- Protection of sensitive surfaces

### Products

- DuploCOLL® 600XX Range





## Bonding

### Optical Clear

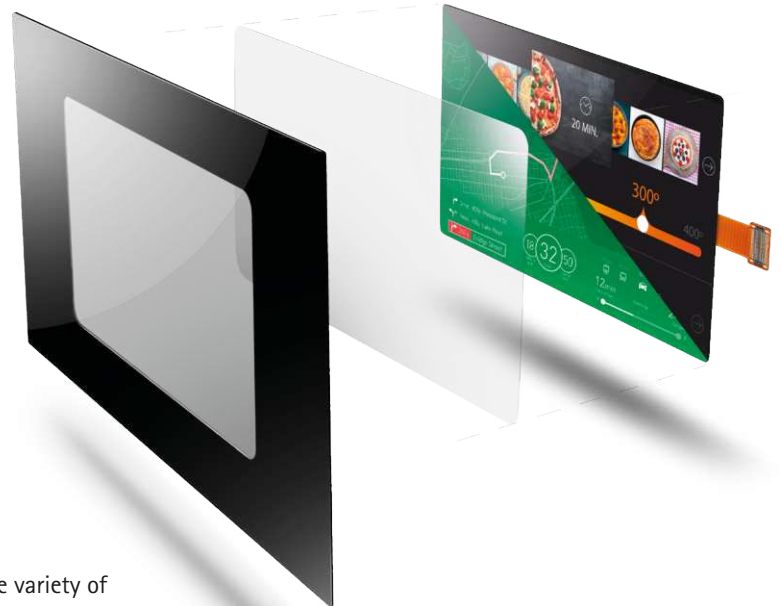
Displays with or without touch sensors are bonded securely and without air bubbles directly to the full surface of the front panel using our highly transparent transfer adhesive tapes. This enables unrestricted functionality of all display units as well as the touch sensors. Air bubbles can be removed subsequently with the help of an autoclave.

### Features

- Highly transparent
- Acid-free
- Suitable for polycarbonate and PMMA
- Suitable for die-cutting

### Products

- DuploCOLL® OC Range



### Fixation

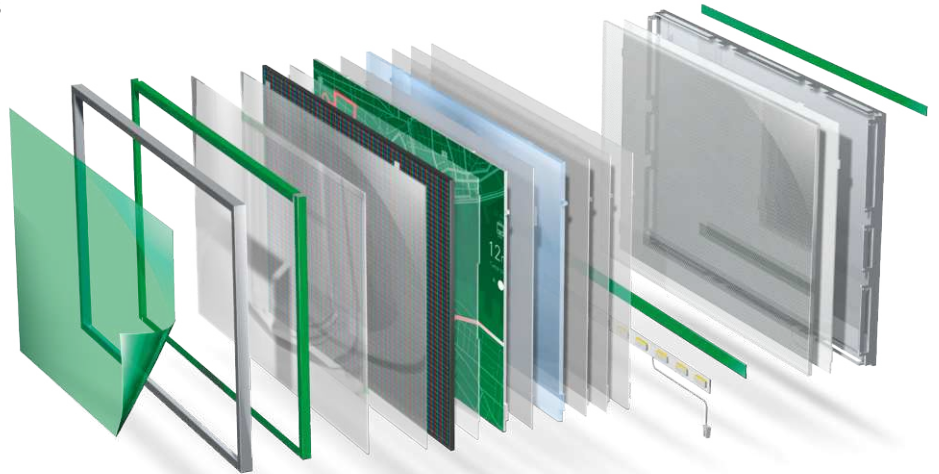
If bonding solutions without further functionality are needed, a wide variety of double-sided adhesive tapes with different constructions can be offered, for example for bonding of decorative parts or mounting of different display components.

### Features

- Excellent converting and die-cutting properties

### Products

- DuploCOLL® 9042
- DuploCOLL® 38220 BLK
- DuploCOLL® 36XX Range
- DuploCOLL® 930 Range
- DuploCOLL® 3702
- DuploCOLL® 5016



# Always transparent for you

## Lohmann's high-end adhesive solutions for electronics displays.

Hardly any other industry is developing so rapidly and confronting manufacturers with such complex and diverse requirements as the Electronics industry and the Automotive Electronics sector. In addition to the size, shape and performance of displays, their design is playing an increasingly important role. Various devices are becoming more and more „intelligent“; for example, large display screens can be found in household appliances, cell phones, tablets or medical devices.

Especially in your car, large displays are becoming more and more popular – both for the driver and the passenger. This is where Lohmann comes into play. Our functional adhesive tapes are the solution for our customers' individual and innovative design ideas. Our products are true multi-talents that combine a wide variety of functions.

For example, our high-end adhesive tapes enable transparent and ultra-thin bonds, efficient seals and insulation possibilities. We also have the right products for thermally and electrically conductive applications.

## So much more than just a bond:

The Bonding Engineers are also well equipped to meet other requirements in the Electronics industry. Learn more about our functional bonding solutions for Electronics and visit our microsite: <https://www.electronics-tapes.com/en>



## The search is over:

In the Product-Navigator on our homepage you can inform yourself about our portfolio of established and permanently available standard products. Simply filter our „Lohmann classics“ by adhesive, liner and desired function and find the perfect product for your application.

<https://www.lohmann-tapes.com/product-navigator>



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