KURZ

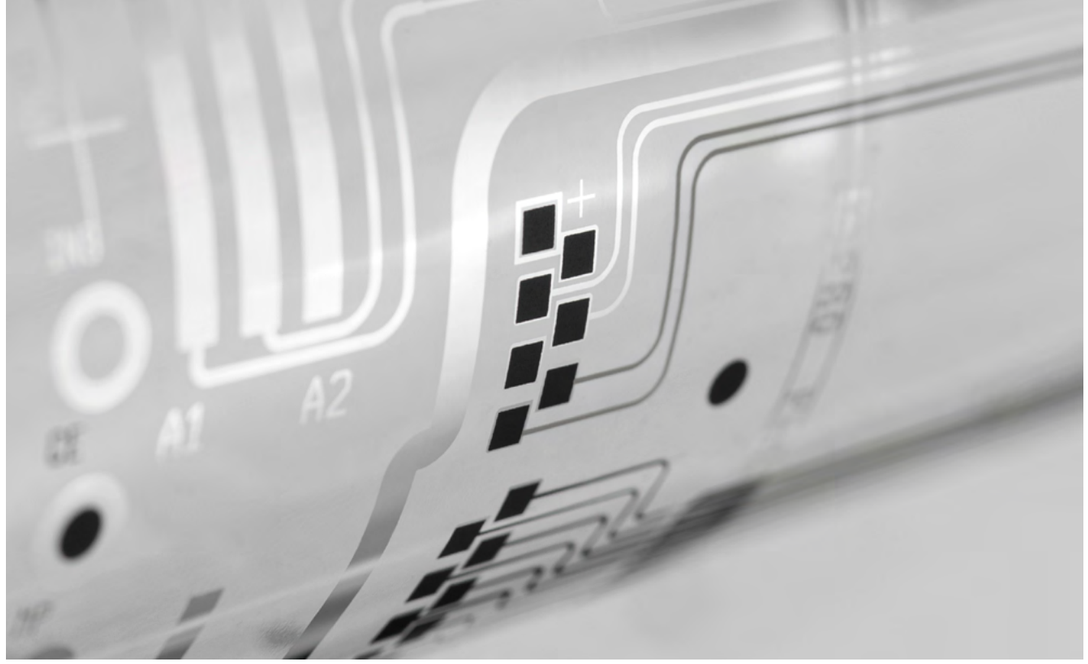
Flexible Sensor Film

Precise. Scalable. Customizable.

Flexible Sensor Film

Precise.
Scalable.
Customizable.

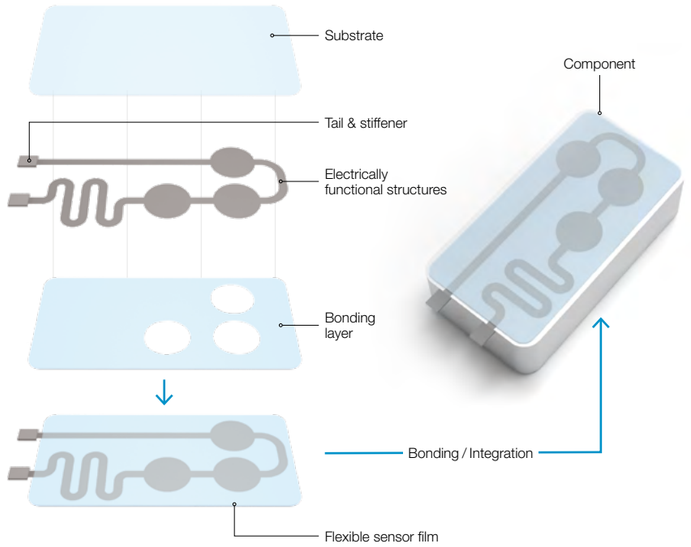
Electrically functional structures on flexible plastic films, manufactured using high-resolution and scalable roll-to-roll processes. Conducting paths, electrodes, and sensor elements, as well as the film geometry and layer structure, are tailored to the specific application. Optional bonding layers facilitate integration into down-stream components and processes.



Typical layer structure of the flexible sensor film:

The flexible sensor film forms a thin, custom-configurable multilayer composite. Electrically functional structures, film geometry, and layer structure can be specifically tailored to the respective application and component geometry. The custom design enables reliable integration into various components and offers a high degree of design and integration freedom.

Depending on the application, the sensor foil can be equipped with an adhesive layer tailored to the bonding process. In addition, various bonding and integration methods are available, such as gluing, sealing, laser welding, Functional Foil Bonding (FFB), hot stamping, or IML / IMD. The product is supplied as rolls or as precut individual parts, depending on your needs.



The table shows a selection of typical properties and design options for each layer.

Layer	Information	
Substrate	Material: Properties: Optional:	Plastic films, e.g. polyester Flexible, print- and coatable Temperature-stabilized, optically transparent, translucent, or opaque
Electrically Functional Structures	Custom-designed electrodes, conductive paths, tail, stiffener and other sensor elements for a wide range of sensor and measurement applications. Material: Electrical properties: Properties:	 Ag / AgCl, silver, carbon and other conductive materials Can be tailored to specific applications based on material, geometry, and layer thickness Can be customized to meet specific requirements regarding adhesion to the substrate, durability, and long-term stability
Bonding Layer	Material: Properties:	Application-specific bonding materials, e.g., heat-seal adhesives or PSA Tailored to the component, substrate, and bonding / integration process; full-surface or selective application possible

KURZ develops flexible sensor films tailored to your specific requirements – from material selection and functional layout to the bonding layer and film geometry. Please feel free to contact us regarding your application.

Application options

- Biosensor technology
- Wearables
- Life sciences
- Environmental sensors
- Medical imaging devices

POLY IC a KURZ company

PolyIC develops and markets products based on printed electronics technology. Founded as a joint venture between LEONHARD KURZ and Siemens AG, it has been wholly owned by the KURZ Group since 2010. Combining decades of expertise in surface decoration with innovative sensor solutions, PolyIC focuses on transparent, conductive sensor foils for touch applications using its patented PolyTC® technology.

OVD KINEGRAM a KURZ company

OVD Kinegram, a subsidiary of the German KURZ Group, is a global leader in protecting identity documents and banknotes with its unique KINEGRAM® technology. Known for uncompromising quality and reliability, the company brings more than 40 years of experience in over 140 countries. The expertise and standards developed in these projects have successfully been transferred to a variety of medical technology applications.

Contact

Revolutionize medical technology with us.

E-Mail:
medical.technology@kurz.de

Scan for more information!
www.kurz-medical.com

The KURZ Group

The KURZ Group is an international leader in thin-film technology and supplies products for surface finishing and decoration. With over 5,800 employees at more than 50 sites worldwide, KURZ has an international presence and manufactures under uniform quality and environmental standards in Europe, Asia, and the USA. Thanks to KURZ's many years of experience and the constant expansion of our portfolio, we can offer our customers a wide range of products – and all from one source. A global network of subsidiaries, representatives and sales offices ensures short paths and individual, on-site consulting.

Germany
LEONHARD KURZ Stiftung & Co. KG
Schwabacher Str. 482
90763 Fuerth/Germany
Phone: +49 911 71 41-0
E-Mail: sales@kurz.de
www.kurz-world.com

USA
Huntersville/Charlotte/Chicago/Detroit/Lexington/
Los Angeles/New York
KURZ TRANSFER PRODUCTS, L.P. (KTP)
www.kurzusa.com

China
Hefei/Beijing/Chongqing/Kunming/
Shanghai/Shenzhen
KURZ STAMPING TECHNOLOGY
(HEFEI) Co., Ltd.
www.kurz.cn

Sales subsidiaries with logistic centers

Australia
Sydney/Adelaide/Melbourne
LEONHARD KURZ (Aust.) PTY. LTD.
www.kurz.com.au

Brazil/São Paulo
KURZ do BRASIL
www.kurz.com.br

Chile/Santiago
KURZ Chile S.A.
www.kurz.cl

Czech Republic/Střelice u Brna
KURZ Czech & Slovak s.r.o.
www.czkurz.com

Egypt/El Obour City
KURZ Egypt Enterprise LLC
www.kurz-eg.com

France/Paris
KURZ FRANCE S.A.R.L.
www.kurz.fr

Germany/Doebeln
KURZ TYPOFOL GmbH
www.typofol.de

Great Britain/Watford
LEONHARD KURZ (UK) LTD.
www.kurz.co.uk

Hungary/Budapest
LEONHARD KURZ South-East Europe Kft.
www.kurz.hu

India
Noida/Chennai/Calcutta/Mumbai/Ahmedabad
KURZ (INDIA) PVT. LTD.
www.kurz.in

Ireland/Dublin
LEONHARD KURZ IRELAND LTD.
www.kurz.ie

Japan
Osaka/Tokyo
KURZ JAPAN LTD.
www.kurzjapan.com

Mexico
Mexico City/Guadalajara
KURZ MÉXICO S.de R.L.de C.V.
www.kurz.mx

Morocco/Casablanca
KURZ North Africa Maroc
www.kurz-na.com

Netherlands/Nijmegen
LEONHARD KURZ BENELUX B.V.
www.kurz.nl

New Zealand/Penrose
KURZ NEW ZEALAND
www.kurz.com.au

Switzerland/Wallisellen
KURZ Schweiz AG
www.kurzag.ch

Taiwan/Taipei
KURZ CHEERS, Inc.
www.kurz.com.tw

Thailand/Bangkok
KURZ (Thailand) Ltd.
www.kurz.co.th

Tunisia/Tunis
KURZ North Africa
www.kurz-na.com

Fields of expertise

KURZ is always investing in new technologies. KURZ subsidiaries develop innovative solutions for functional integrations into surfaces as well as products for labeling and counterfeit protection, along with the corresponding software. A comprehensive range of stamping presses and stamping tools rounds off the versatile KURZ product portfolio. Furthermore, KURZ subsidiaries use their expertise to provide future-oriented, custom-made complete solutions including project consultancy and machine and tool technology.

Baier GmbH + Co KG Maschinenfabrik
www.baier-praegetechnik.de

BURG DESIGN GmbH
www.burg-design.com

Canyon Graphics, Inc.
www.canyongraphics.com

Hinderer + Mühlich GmbH & Co. KG
www.hinderer-muehlich.com

ISIMAT GmbH Siebdruckmaschinen
www.isimat.com

KURZ Digital Solutions GmbH & Co. KG
www.kurzdigital.com

MPRINT Morlock GmbH & Co. KG
www.mprint.de

OVD Kinegram AG
www.kinegram.com

PolyIC GmbH & Co. KG
www.polyic.com

SCHÖFER GmbH
www.schoefer.at

SCRIBOS GmbH
www.kurz-scribos.com

Follow us on:

The information provided herein is given with utmost care and according to our best knowledge and experience as of the date of this document, but no representation, guarantee or warranty, expressed or implied is made as to the accuracy, reliability or completeness of the information or to any special quality or fitness of the product for a special application. This information does not release the customer from his own liability for care examination, in particular with regard to the incoming goods inspection and any fitness of the respective product for his intended use. All patterns and designs owned by KURZ. Reproduction strictly forbidden. Infringements will be prosecuted. All rights reserved.

Issue 11/2026 – This document supersedes all previous issues.

© KURZ 2026 950050533.11/26.0,5