

Printed Electronics

BELECTRON® Product Information

Functional inks and more

Excellent inks and personal support for printed electronics offers you our Product Line Printed Electronics, to push forward your applications.

Our portfolio includes conductive, insulating and functional screen printing inks for applications such as membrane switches, touch surfaces, in-mold-electronics, hybrid electronics, sensors, RFID antennas and electroluminescent lighting.



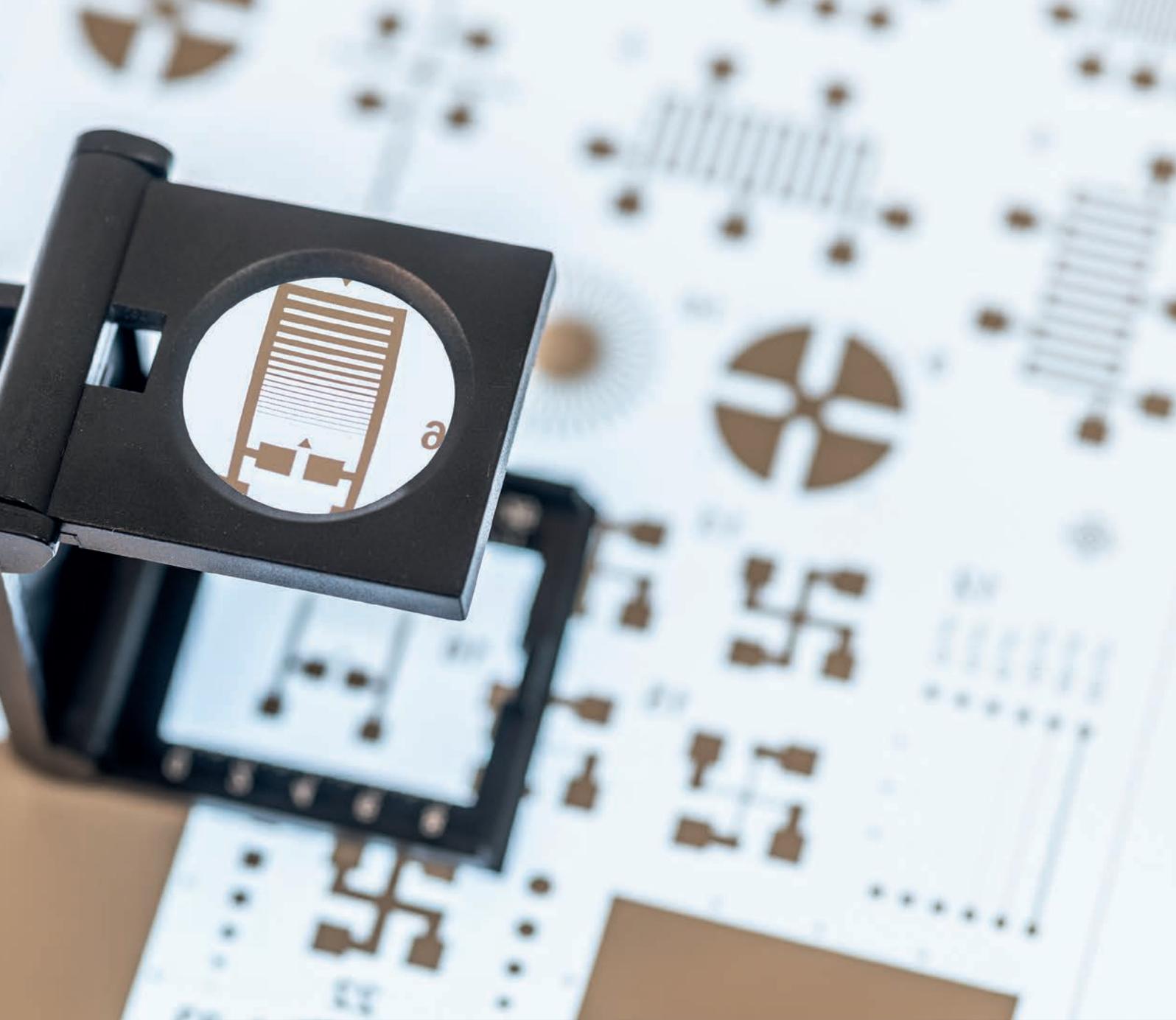


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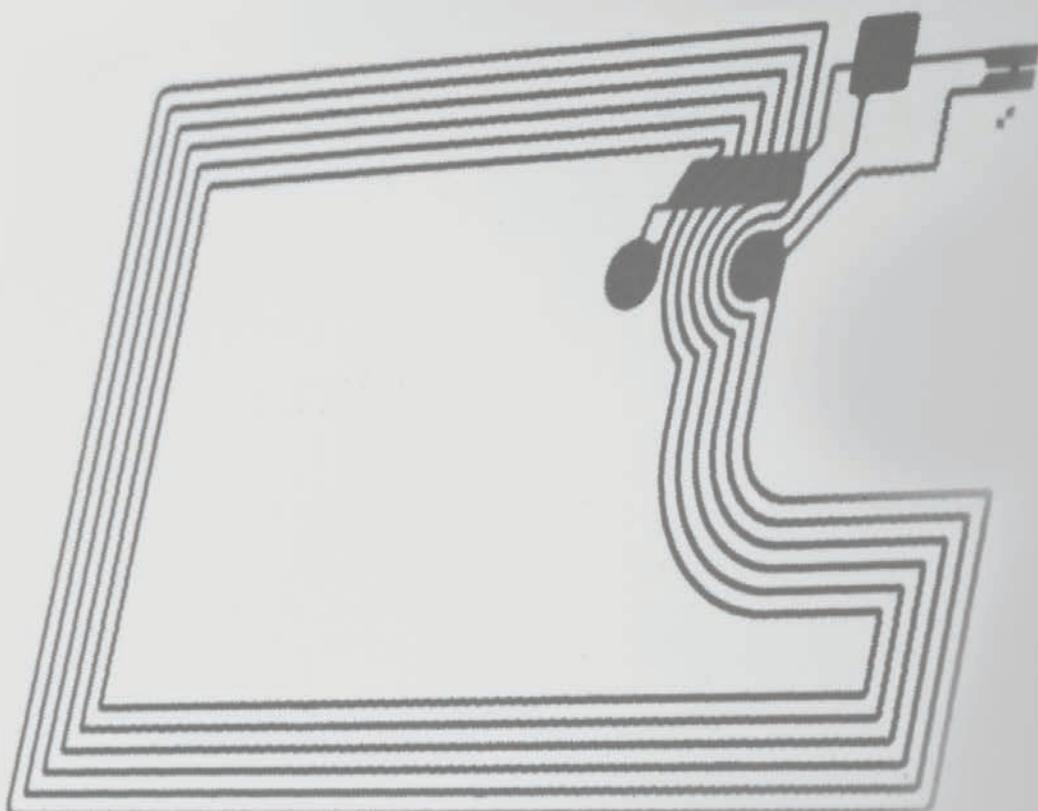
Membrane switch ink system



	Description	Drying / Curing	Benefit
Bectron® CP 6662	Conductive silver ink	10 min at 120°C	Optimized for fine line printing, very flexible, long screen open time, good adhesion to untreated and treated PET films, <math><0.010 \Omega/\text{sq}/\text{mil}</math>
Bectron® CP 6611	Conductive silver/ carbon ink	10 min at 120°C	Long screen open time, <math><0.025 \Omega/\text{sq}/\text{mil}</math>
Bectron® GP 9552	Conductive carbon ink	10 min at 120°C	Silver top-coat with good adhesion to treated PET films, <math><40 \Omega/\text{sq}/\text{mil}</math>
Bectron® GP 9553	Conductive carbon ink	10 min at 120°C	Good adhesion to silver and untreated PET films, <math><40 \Omega/\text{sq}/\text{mil}</math>
Bectron® DP 8442	Insulating ink green	5 m/min at >600 mJ/cm ² UVA	Good adhesion to silver, untreated and treated PET films
Bectron® DP 8443	Insulating ink blue	5 m/min at >600 mJ/cm ² UVA	Good adhesion to silver, untreated and treated PET films
Bectron® DP 8444	Insulating ink colorless	5 m/min at >600 mJ/cm ² UVA	Good adhesion to silver, untreated and treated PET films

Antenna ink system

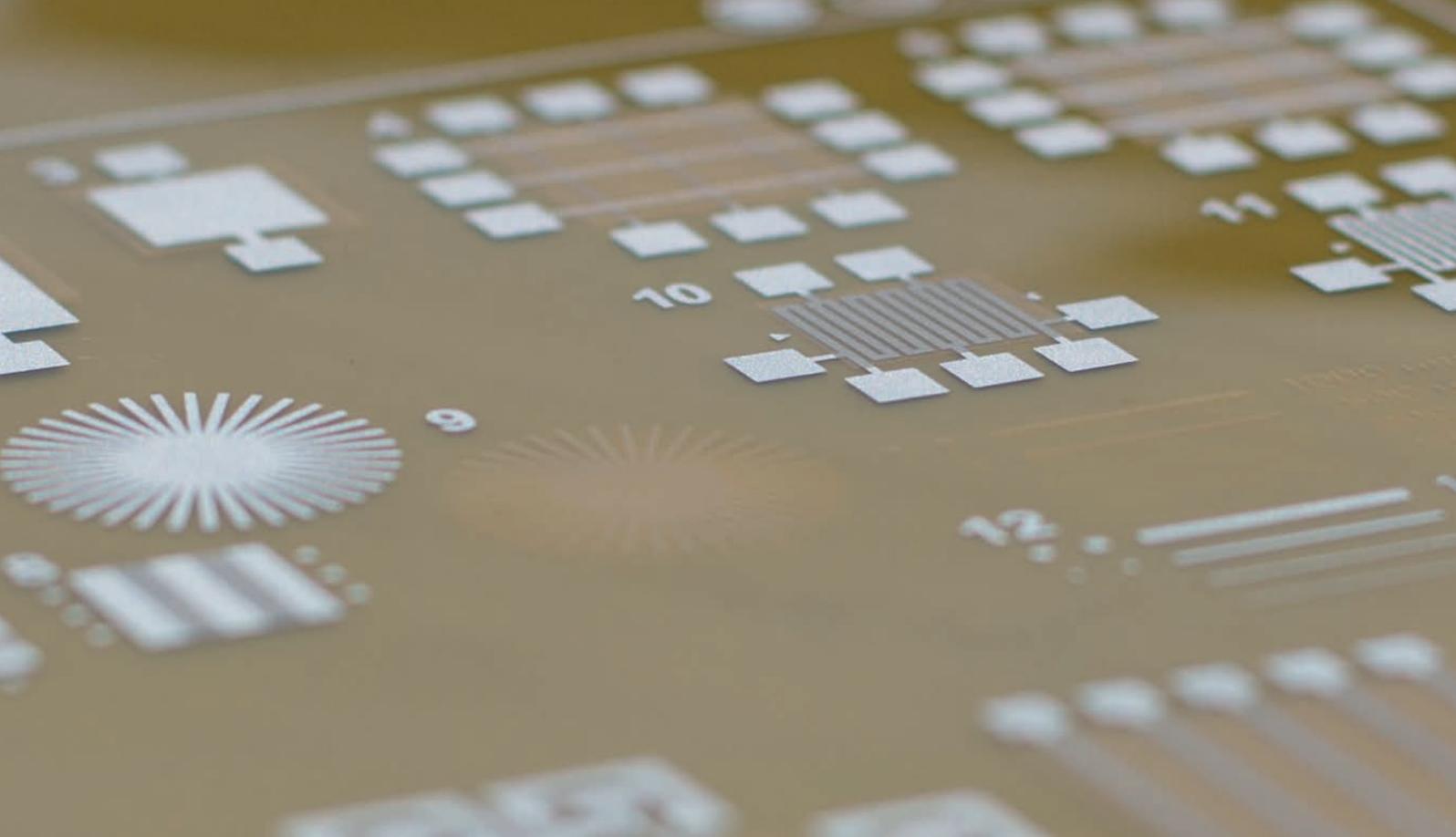
	Description	Drying / Curing	Benefit
Bectron® CP 6662	Conductive silver ink	10 min at 120°C	Optimized for fine line printing, very flexible, long screen open time, good adhesion to untreated and treated PET films, <math><0.010 \Omega/\text{sq}/\text{mil}</math>
Bectron® CP 6668	Conductive silver ink	3 min at 120°C	Very fast curing version, <math><0.010 \Omega/\text{sq}/\text{mil}</math>
Bectron® CP 6669	Conductive silver ink	5 min at 120°C	Fast curing version optimized for a long screen open time, <math><0.010 \Omega/\text{sq}/\text{mil}</math>
Bectron® DP 8442	Insulating ink green	5 m/min at >600 mJ/cm ² UVA	Good adhesion to silver, untreated and treated PET films
Bectron® DP 8443	Insulating ink blue	5 m/min at >600 mJ/cm ² UVA	Good adhesion to silver, untreated and treated PET films
Bectron® DP 8444	Insulating ink colorless	5 m/min at >600 mJ/cm ² UVA	Good adhesion to silver, untreated and treated PET films





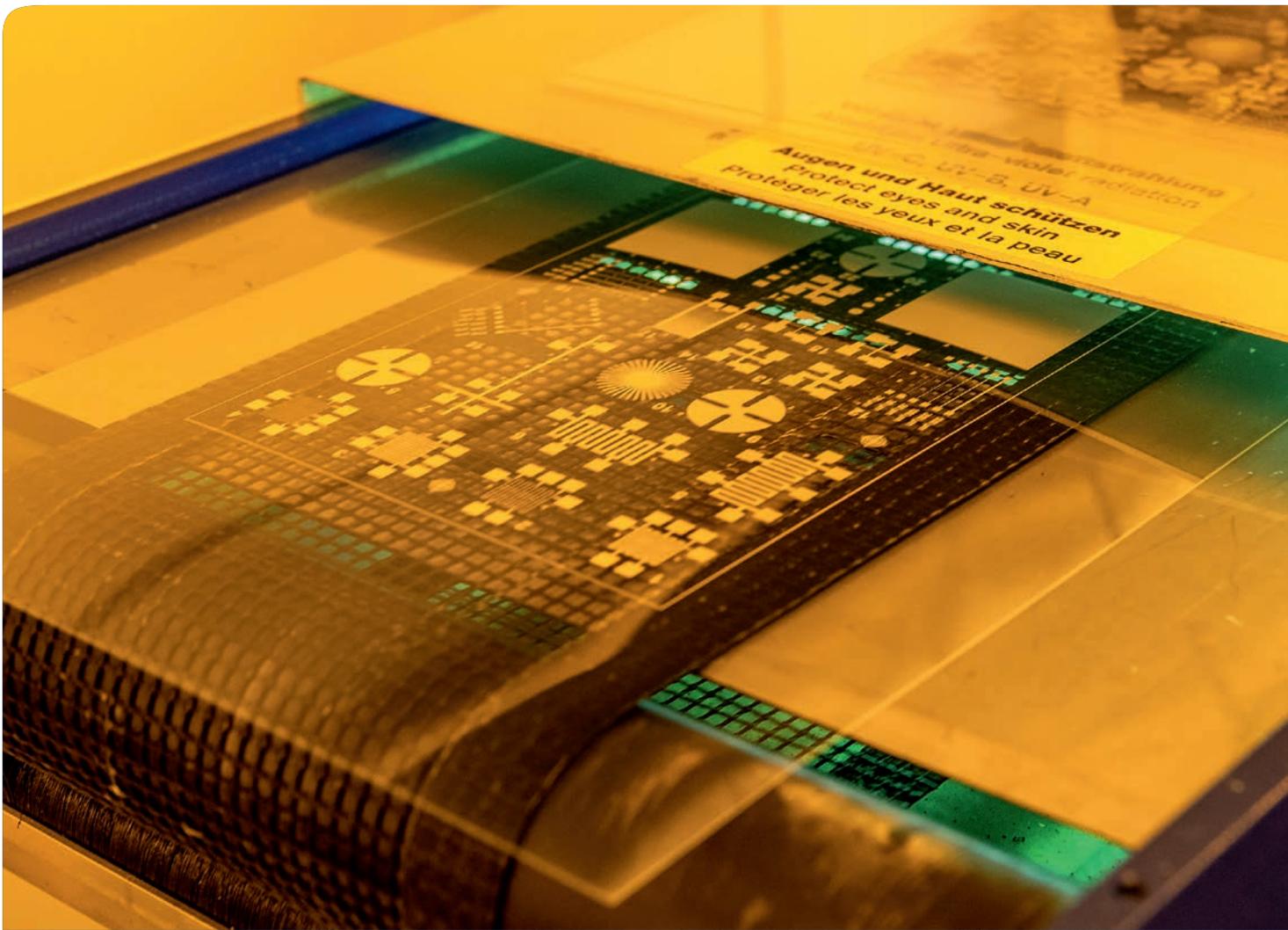
In-mold-electronics (IME) ink system

	Description	Drying / Curing	Benefit
Bectron® CP 6680	Thermoformable conductive silver ink	10 min at 120°C	Optimized for in-mold-electronics, <math><0.025 \Omega/\text{sq}/\text{mil}</math>
Bectron® CP 6681	Conductive silver ink	10 min at 120°C	Optimized for PC films, <math><0.015 \Omega/\text{sq}/\text{mil}</math>
Bectron® GP 9580	Thermoformable conductive carbon ink	10 min at 120°C	Optimized for in-mold-electronics, good adhesion to silver and PC films, <math><55 \Omega/\text{sq}/\text{mil}</math>



High temperature ink system

	Description	Drying / Curing	Benefit
Bectron® CP 6690	High temperature conductive silver ink	10 min at 160°C	Optimized for high temperature applications up to 200°C, good adhesion on ELAN-Film HT 180 and Kapton, <math><0.015 \Omega/\text{sq}/\text{mil}</math>
Bectron® DP 8490	High temperature insulating ink	10 min at 160°C	Optimized for high temperature applications up to 200°C, good adhesion on ELAN-Film HT 180 and Kapton

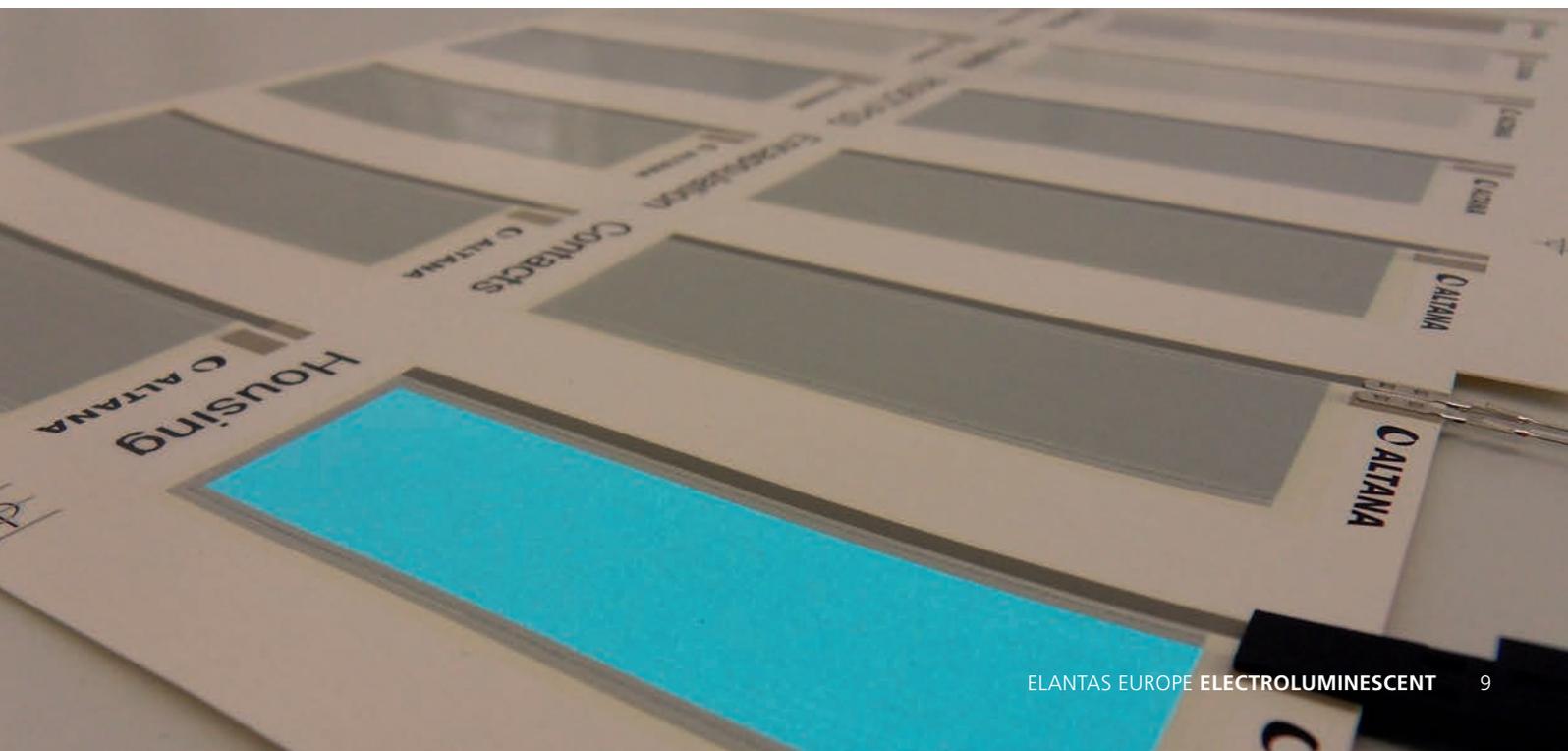


Silver and insulating UV-curable ink system

	Description	Drying / Curing	Benefit
Bectron® CP 6670	UV-curable conductive silver ink	5 m/min at >700 mJ/cm ² UVA and 5 min at 120°C	UV-curable and 100% VOC-free, superior screen open time, <0.070 Ω/sq/mil
Bectron® CP 6671	UV-curable conductive silver ink	5 m/min at >700 mJ/cm ² UVA and 2 min at 100°C	UV-curable and ultra-low VOC, superior screen open time, <0.030 Ω/sq/mil
Bectron® DP 8442	Insulating ink green	5 m/min at >600 mJ/cm ² UVA	Good adhesion to silver, untreated and treated PET films
Bectron® DP 8443	Insulating ink blue	5 m/min at >600 mJ/cm ² UVA	Good adhesion to silver, untreated and treated PET films
Bectron® DP 8444	Insulating ink colorless	5 m/min at >600 mJ/cm ² UVA	Good adhesion to silver, untreated and treated PET films

Electroluminescent UV ink system

	Description	Drying / Curing	Benefit
Bectron® EL 7001 AB	Active phosphor blue ink	5 m/min at >600 mJ/cm ² UVA	PEDOT, paper and various films like PET or PC
Bectron® EL 7002 AC	Active phosphor cyan ink	5 m/min at >600 mJ/cm ² UVA	PEDOT, paper and various films like PET or PC
Bectron® EL 7003 AG	Active phosphor green ink	5 m/min at >600 mJ/cm ² UVA	PEDOT, paper and various films like PET or PC
Bectron® EL 7030 D	Dielectric ink	5 m/min at >600 mJ/cm ² UVA	PEDOT, paper and various films like PET or PC
Bectron® EL 7080 TC	Transparent conductive ink	5 min at 100°C	Paper and various films like PET or PC
Bectron® EL 7090 E	Encapsulation ink	5 m/min at >200 mJ/cm ² UVA	PEDOT, paper and various films like PET or PC
Bectron® CP 6662	Conductive silver ink	10 min at 120°C	Optimized for fine line printing, very flexible, long screen open time, good adhesion to untreated and treated PET films, <0.010 Ω/sq/mil



Overview

screen printing inks

Conductive silver inks

- Based on solvents or UV-curable and VOC-free
- Fast processing
- Good adhesion to glass, paper and various films such as PET or PC
- Highly flexible films
- Thermoformable
- Easy to clean

	Description	Drying / Curing	Benefit
Bectron® CP 6662	Conductive silver ink	10 min at 120°C	Optimized for fine line printing, very flexible, long screen open time, good adhesion to untreated and treated PET films, <0.010 Ω/sq/mil
Bectron® CP 6663	Conductive silver ink	10 min at 120°C	Optimized for membrane switches, <0.015 Ω/sq/mil
Bectron® CP 6666	Conductive silver ink	10 min at 120°C	Good adhesion to glass, <0.025 Ω/sq/mil
Bectron® CP 6668	Conductive silver ink	3 min at 120°C	Very fast curing version, <0.010 Ω/sq/mil
Bectron® CP 6669	Conductive silver ink	5 min at 120°C	Fast curing version optimized for a long screen open time, <0.010 Ω/sq/mil
Bectron® CP 6670	UV-curable conductive silver ink	5 m/min at >700 mJ/cm² UVA and 5 min at 120°C	UV-curable and 100% VOC-free, superior screen open time, <0.070 Ω/sq/mil
Bectron® CP 6671	UV-curable conductive silver ink	5 m/min at >700 mJ/cm² UVA and 2 min at 100°C	UV-curable and ultra-low VOC, superior screen open time, <0.030 Ω/sq/mil
Bectron® CP 6680	Thermoformable conductive silver ink	10 min at 120°C	Optimized for in-mold-electronics, <0.025 Ω/sq/mil
Bectron® CP 6681	Conductive silver ink	10 min at 120°C	Optimized for PC films, <0.015 Ω/sq/mil
Bectron® CP 6690	High temperature conductive silver ink	10 min at 160°C	Optimized for high temperature applications up to 200°C, good adhesion on ELAN-Film HT 180 and Kapton, <0.015 Ω/sq/mil

Conductive carbon inks

- Fast processing
- Based on solvents
- Good adhesion to various films such as PET
- Highly flexible films
- Easy to clean

	Description	Drying / Curing	Benefit
Bectron® GP 9552	Conductive carbon ink	10 min at 120°C	Silver top-coat with good adhesion to treated PET films, <40 Ω/sq/mil
Bectron® GP 9553	Conductive carbon ink	10 min at 120°C	Good adhesion to silver and untreated PET films, <40 Ω/sq/mil
Bectron® GP 9555	Conductive carbon ink	10 min at 120°C	Good adhesion to glass, <50 Ω/sq/mil
Bectron® GP 9580	Thermoformable conductive carbon ink	10 min at 120°C	Optimized for in-mold-electronics, good adhesion to silver and PC films, <55 Ω/sq/mil

Other conductive inks

	Description	Drying / Curing	Benefit
Bectron® CP 6611	Conductive silver/ carbon ink	10 min at 120°C	Long screen open time, <0.025 Ω/sq/mil
Bectron® CP 6651	Conductive silver coated copper ink	10 min at 120°C	Optimized for EMI shielding, <1 Ω/sq/mil

Insulating inks

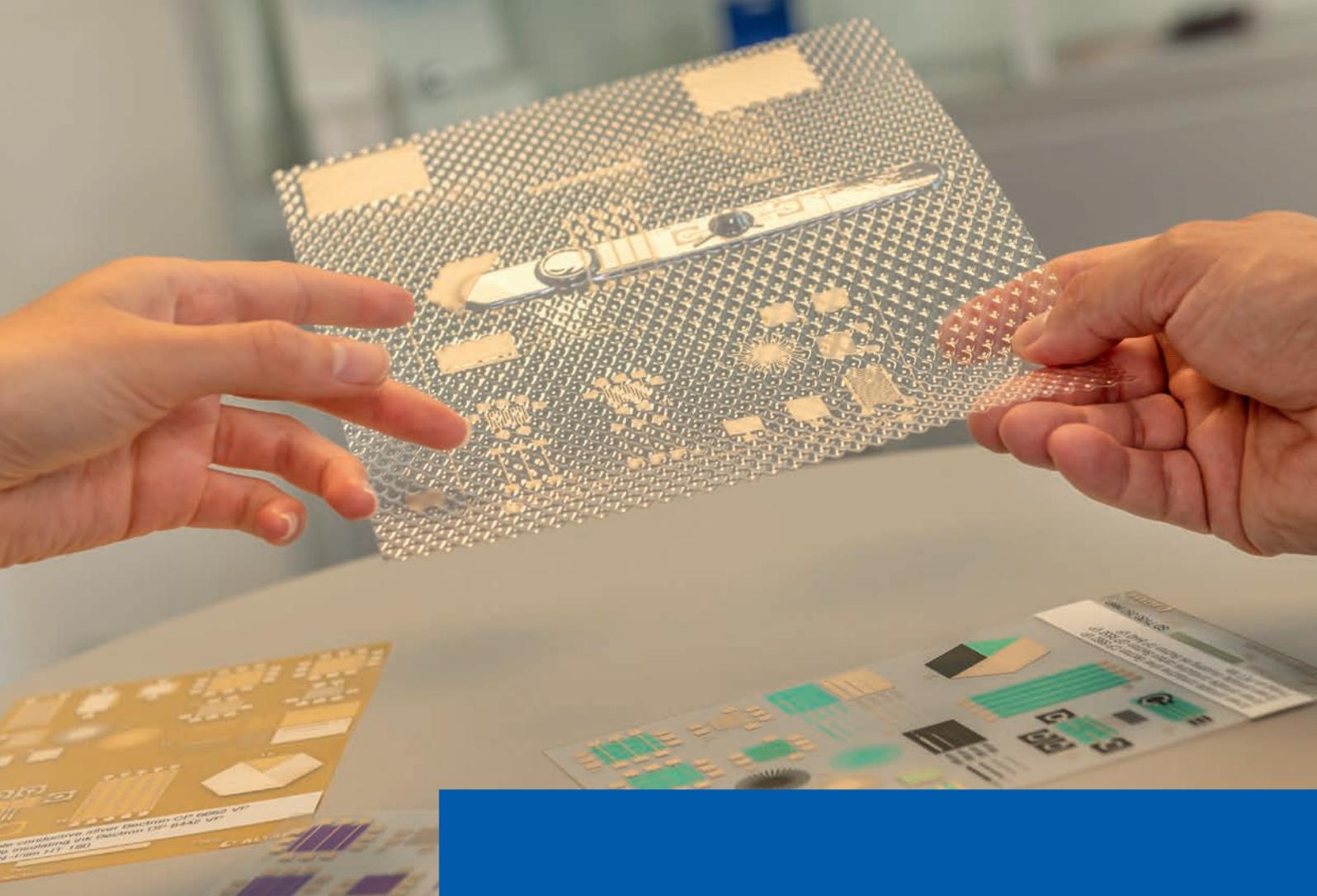
- Transparent or colored
- Fast processing
- UV-curable and VOC-free
- Good adhesion to glass, paper and various films such as PET or PC
- Flexible films
- Easy to clean

	Description	Drying / Curing	Benefit
Bectron® DP 8442	Insulating ink green	5 m/min at >600 mJ/cm ² UVA	Good adhesion to silver, untreated and treated PET films
Bectron® DP 8443	Insulating ink blue	5 m/min at >600 mJ/cm ² UVA	Good adhesion to silver, untreated and treated PET films
Bectron® DP 8444	Insulating ink colorless	5 m/min at >600 mJ/cm ² UVA	Good adhesion to silver, untreated and treated PET films
Bectron® DP 8490	High temperature insulating ink	10 min at 160°C	Optimized for high temperature applications up to 200°C, good adhesion on ELAN-Film HT 180 and Kapton

Luminescent inks

- Electroluminescent UV system
- Fast processing, and mainly VOC-free
- Good adhesion to PEDOT, ITO, paper and various films such as PET or PC
- Available colors: green, blue and cyan
- Improved light outcoupling

	Description	Drying / Curing	Benefit
Bectron® EL 7001 AB	Active phosphor blue ink	5 m/min at >600 mJ/cm ² UVA	PEDOT, paper and various films like PET or PC
Bectron® EL 7002 AC	Active phosphor cyan ink	5 m/min at >600 mJ/cm ² UVA	PEDOT, paper and various films like PET or PC
Bectron® EL 7003 AG	Active phosphor green ink	5 m/min at >600 mJ/cm ² UVA	PEDOT, paper and various films like PET or PC
Bectron® EL 7030 D	Dielectric ink	5 m/min at >600 mJ/cm ² UVA	PEDOT, paper and various films like PET or PC
Bectron® EL 7080 TC	Transparent conductive ink	5 min at 100°C	Paper and various films like PET or PC
Bectron® EL 7090 E	Encapsulation ink	5 m/min at >200 mJ/cm ² UVA	PEDOT, paper and various films like PET or PC



Your added value

Discover the superior performance and processing of our functional inks. We offer special formulations, printing tests and characterization in our laboratory according to your specifications (application, layout and substrate). Our technical team would be pleased to support you on site.



ELANTAS PDG
St. Louis, MO, USA
1919 / 1996

ELANTAS PDG, NY
Olean, NY, USA
1958 / 2017

ELANTAS IEd Brasil
Cerquilha, São Paulo, Brazil
2006 / 2006

ELANTAS Europe GmbH
Hamburg, Germany
1904 / 2003

ELANTAS GmbH
Wesel – Germany
2001 / 2001

ELANTAS Europe S.r.L.
Ascoli, Collecchio, Quattordio, Italy
1962 / 1993



The ALTANA Group develops and manufactures high quality, innovative specialty chemical products. With us, you can help shape many important details of the world of the future. Our four divisions BYK, ECKART, ELANTAS, and ACTEGA have set worldwide standards in their markets. Our innovative products enable companies to develop technologies of the future today, technologies that make life easier, safer, and more comfortable. With sales of 2 billion euros, we are one of the world's most innovative, fastest-growing, and most profitable chemical companies. We currently employ more than 6,000 people who have good ideas for the world of the future. You, too, can discover the special side of life with us. Bringing you many advantages.

ELANTAS stands for innovative power in insulating materials for the electrical industry and ensures that electricity flows safely. ELANTAS insulating materials provide electric motors, cars, wind turbines, computers and many other devices for smooth and low loss function. A new Product Line of ELANTAS Europe offers functional inks for printed electronics.

ELANTAS Beck India
Ankleshwar, Gujarat, India
1981 / 2003

ELANTAS Beck India
Pimpri, Maharashtra, India
1956 / 2003

ELANTAS Zhuhai
Zhuhai, Guangdong, China
2003 / 2003

ELANTAS Tongling
Tongling, Anhui, China
1995 / 1998

ELANTAS Malaysia
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2014 / 2014



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