

Press Release



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Covestro at the TRUSTECH trade fair from 27 to 29 November 2018

Covestro AG
Communications
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Film solutions for forgery-proof ID documents

All-in-one passport concept for multiple security needs

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From November 27- 29, 2018, the card and ID card industry will meet again in Cannes in southern France to present their latest developments at the TRUSTECH trade fair. Covestro has more than 30 years of experience in the field of material solutions for manufacturers of ID cards.

At booth number A 043 in the Riviera hall, the company will present an integrated passport concept comprising innovative technologies based on specialty films. They offer improved properties for security card manufacturing and in particular enable new applications against counterfeit attempts. Major features are a new concept for clear window technology and a new generation of thermoplastic polyurethanes (TPU) for passport hinges.

Additional security feature: clear windows

At TRUSTECH, Covestro will present a new concept for clear window technology. Such windows present an additional security feature against counterfeiting attempts. For the manufacture of ID cards it is essential that the card construction has a flat surface without irregularities. Covestro developed a very thin film with extremely high opacity which is particularly suitable for the seamless integration of clear window applications.

The innovative film solution enables a new production method which does not require filling a punched window inside a polycarbonate card or passport data page with additional material. During the lamination process, the transparent layers merge and the thin hole is filled without any irregularities on the document's surface. This innovative construction offers more space for transparent layers and for the integration of additional



security features. Complex window geometries are also possible. The thinner opaque films also simplify the lamination process and significantly reduce the cycle time as well as the visibility of integrated antennas and chips.

In conventional manufacturing, die-cut windows are filled with a transparent polycarbonate film of the type Makrofol® ID. This is punched out of small film strips in order to reduce material waste, and processed on automated card production lines.

Simplified production processes

“We are very proud to offer our customers solutions for reducing complexity in their production processes,” explains Cengiz Yesildag, Global Segment Head ID/Security at Covestro. “Makrofol ID thin white high opaque films combine the advantages of easier construction of clear windows in security documents with shorter lamination cycles, a clear win-win situation for our customers.”

For the opaque films, Covestro has received the Blue Shield Innovation Award at the Security Document Summit in China on October 17, 2018 – in total for the fifth time in a row.

Next generation TPU hinge material

Another Covestro development affects the interior design of passports. The data page is laminated onto a thin fold that is integrated into the passport for a secure fit. The production process is very efficient and the bond is also durable: the passports can be opened and closed as often as required without the flexibility suffering or the fold tearing.

The fold consists of a multi-layer film composite made of thermoplastic polyurethane (TPU). At TRUSTECH, Covestro will be presenting a new Platilon® ID film, which offers a further 35 percent increase in tear resistance compared to the standard product Platilon® ID 9122.

More design freedom

Compared to individual films, the layers in the film composite have lower layer thicknesses and thus allow greater design freedom, especially for the thinner data page. As a result, the integration of safety features is simplified and the lower layer thickness saves costs.

Multi-layer Platilon® ID can be excellently bonded with polycarbonate and ensures that data pages cannot be delaminated without destroying the passport completely.

Covestro has developed Makrofol® ID superlaser polycarbonate film for particularly forgery-proof security cards. The composite of three layers is



extremely sensitive to laser radiation. Laser engraving therefore requires less energy than conventional laser-sensitive films and saves at least 20 percent time during production. At the same time, maximum contrast can be achieved – even at very low layer thicknesses: 50 percent of the data content of a personal photograph is already contained in a layer only 10 micrometers thick.

New passport concept at TRUSTECH conference

Markus Mingenbach, head of the Specialty Films business of Covestro in the Asia Pacific region, will introduce the company's new passport concept at Trustech's Innovation Stage. This gathering of innovators during TRUSTECH fair provides a unique forum for discussing latest developments for ID documents. On November 29 he will present the new films for clear window technology and passport hinges and inform the audience about improved properties of Makrofol® ID superlaser films.

About Covestro:

With 2017 sales of EUR 14.1 billion, Covestro is among the world's largest polymer companies. Business activities are focused on the manufacture of high-tech polymer materials and the development of innovative solutions for products used in many areas of daily life. The main segments served are the automotive, construction, wood processing and furniture, and electrical and electronics industries. Other sectors include sports and leisure, cosmetics, health and the chemical industry itself. Covestro has 30 production sites worldwide and employs approximately 16,200 people (calculated as full-time equivalents) at the end of 2017.

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