

# Press Release



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INSQIN<sup>®</sup> technology: sustainable coating for outdoor textiles

## Water-based, waterproof and water-vapor permeable

Outdoor clothing is designed to keep joggers and hikers dry when it's raining, but also to allow water vapor from sweat to escape to the outside air. More and more buyers are also looking for outdoor textiles that are sustainable. All three of these requirements are met by [INSQIN<sup>®</sup>](#) technology, which stands for water-based textile coatings that don't use any solvents. At the [European Coatings Show 2019](#) from March 19–21, [Covestro](#) will present outdoor clothing that owes its functional properties to this coating technology at its "[City of Sustainnovation](#)" in hall 4A, booth number 528.

Two layers are responsible for giving the outdoor clothing on display its soft, comfortable feel: an adhesive coating, which is based on the polyurethane (PU) dispersion Impraperm<sup>®</sup> DL 5310, and a surface coating, which is based on the PU dispersion Impraperm<sup>®</sup> DL 5249. Covestro has been offering its customers both products for a few months.

One square meter of fabric coated with the INSQIN<sup>®</sup> system allows more than five kilograms of water vapor to escape per day. Both layers contribute to the excellent breathability. On the other hand, layered garments can withstand a water column of more than eight meters during testing. The water column is a measurement of how water-resistant a functional textile fabric is: when the measurement is carried out in accordance with DIN EN ISO 811, the outer side of the textile fabric is exposed to liquid. The water pressure is then steadily increased – until the third drop is seen on the inner side. The effective pressure at this point is then specified in millimeters of water column.



### **Highly versatile – not just for textiles**

“It is quite easy to customize the breathability and water resistance of the coating to the intended purpose and function of the textile fabric,” says Thomas Michaelis of Covestro. The head of Textile Coatings for the Europe, Middle East, Africa and Latin America (EMEA/LA) region adds: “Tailor-made properties can be achieved by varying the formulation and coating thicknesses.” Due to the many configuration possibilities of the INSQIN<sup>®</sup> system, its use is not limited to just garments. Owners of backpacks, shoes and gloves also benefit from it.

Water-based coatings with Impraperm<sup>®</sup> DL 5310 and Impraperm<sup>®</sup> DL 5249 provide garments with good, uniform breathability over the entire surface. This is a clear advantage over other technologies for outdoor clothing, in which membrane films are spot-bonded with the textile fabric. Adhesives are usually not breathable, which means that no water vapor can escape at the adhesive points. However, water-based Impraperm<sup>®</sup> dispersions not only offer an alternative to this membrane technology, but can also be used to improve them: when used as an adhesive, they guarantee permeability for water vapor at the adhesive points.

### **About Covestro:**

With 2018 sales of EUR 14.6 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 16,800 people (calculated as full-time equivalents) at the end of 2018.

*This press release is available for download from the Covestro press server at [www.covestro.com](http://www.covestro.com). A photo is available there for download as well. Please acknowledge the source of any pictures used.*

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