

Press Release



Leverkusen,
February 15, 2019

Covestro AG
Communications
51365 Leverkusen
Germany

Contact
Dr. Frank Rothbarth
Telephone
+49 214 6009 2536
Email
frank.rothbarth
@covestro.com

Covestro at JEC World 2019

Composite material solutions from a single source

Large portfolio of materials and applications

[Covestro](#) has been committed to developing material solutions for [composites](#) for several years and is now a leading provider. The broad portfolio ranges from polycarbonate and polyurethane (PU) products to film formers for fiber sizings.

The range of applications is correspondingly large: it includes wind turbines, photovoltaic systems and auto parts, but also small-scale consumer products such as miniaturized electronic parts and insoles, which are manufactured in large quantities with short cycle times.

At the [JEC World 2019](#) trade fair from March 12–14th in Paris, Covestro will present itself as a solution provider for various industries and applications. At Booth L5 in Hall 5, the company will exhibit its innovative and sustainable developments, which often feature the combination of low weight and high strength. Some of these components help to reduce fuel consumption and CO₂ emissions in cars, and therefore also contribute to meeting the UN's sustainability goals.

Fiber-reinforced composites for robust, thin-walled parts

Thanks to a new composite technology, extra-thin, lightweight, high-strength yet aesthetic parts can be manufactured on an industrial scale. The technology is based on continuous fiber-reinforced thermoplastic polymers (CFRTP) and is sold under the name Maezio™. The matrix materials used include polycarbonate, and carbon fibers are added for reinforcement. At its Markt Bibart location, Covestro uses these materials to manufacture unidirectionally reinforced tapes and panels, which are further processed by customers.



These intermediate products are particularly well-suited for producing extra-thin-walled but robust housing parts for laptops and mobile phones. In line with the current trend for thin-walled devices with a cool look, they can also be made with aesthetic surface structures. The single-stage manufacturing process enables shorter cycle times and significant cost savings.

Cooperation with EconCore

Polycarbonate and its blends, as well as CFRTPs, are the material of choice for producing lighter and more stable honeycomb panels for the interior furnishings in public buses and trains. For this application, the products must comply with specific FST (fire, smoke and toxicity) requirements.

Improving the FST performance of honeycomb panels is an important goal of the new cooperation between Covestro and EconCore N.V. It involves finding the right combination of polycarbonate types and composite materials, and adapting EconCore's honeycomb technology to meet the requirements. The overall objective is to develop lightweight sandwich panels with higher productivity than conventional composite materials.

Efficient production of wind turbine rotor blades

A core objective of Covestro's sustainability concept is to provide active support for climate protection. One key aspect will be promoting renewable energies, primarily wind power. More intensive use in this area will require more cost-effective production of wind turbines with even longer rotors and thus even greater power output.

To achieve this, Covestro has developed a PU resin that, in combination with glass fiber mats and an efficient vacuum infusion process, enables short cycle times and thus cost savings compared with the more commonly used epoxy resin. It is also more robust and should also be suitable for larger sheet lengths. Due to its outstanding mechanical properties, it should also be suitable to produce lighter-weight blades. Last year in China, the company installed its own wind turbines with rotor blades of nearly 60 meters, in order to test the operating capability and stability under practical conditions.

UV-resistant and robust PU material for exterior use

Desmocomp[®] is another highly versatile polyurethane resin, which is ideal for outdoor applications due to its excellent weather and fire resistance. The system can be easily and effectively processed using the pultrusion process.

At JEC World 2019 Covestro will present a composite application with this product in the field of solar power: Fiber Profil S.L. intends to use this Desmocomp[®] aliphatic material for the assembly of large-scale photovoltaic plants and solar thermal systems. For this purpose, the fastening elements must



have outstanding mechanical properties, but also need to provide reliable protection against UV radiation.

Also, among Covestro's wide product selection at JEC World 2019 are its Baybond® water-based PU dispersions, which can be used as a film former in fiber sizings to increase the mechanical stability of composites.

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.

This press release is available for download from the Covestro press server at www.covestro.com/. Photos are available there for download as well. Please acknowledge the source of any pictures used.

Find more information at www.covestro.com.

Follow us on Twitter: <https://twitter.com/covestro>

ro (2019-017E)

Forward-looking statements

This news release may contain forward-looking statements based on current assumptions and forecasts made by Covestro AG. Various known and unknown risks, uncertainties and other factors could lead to material differences between the actual future results, financial situation, development or performance of the company and the estimates given here. These factors include those discussed in Covestro's public reports which are available at www.covestro.com. The company assumes no liability whatsoever to update these forward-looking statements or to conform them to future events or developments.