

# Press Release



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Trend-setting trade show appearance at the K 2022 in Düsseldorf, Germany

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## Circular plastics for green growth markets

- **Covestro as a pioneer for circular economy and climate neutrality**
- **Global approach with alternative raw materials, renewable energy and innovative recycling**
- **New concept for circular products**

At K 2022, [Covestro](#) will showcase the possibilities of particularly sustainable plastics for the world and tomorrow's growth markets. To this end, the company will soon be presenting new products and materials for many key areas that support the circular economy and climate neutrality at the world's largest plastics trade show. In this regard, Covestro sees itself as an industry pioneer and is focusing above all on future-oriented, creative partnerships. International media now got a foretaste of the trade show appearance in October at a press conference in Düsseldorf, Germany.

"Mankind is facing enormous challenges. In addition to acute crises, we need to overcome long-term challenges such as protecting the climate, nature and resources and thus safeguarding our livelihoods," said CEO Dr. Markus Steilemann. "This can be achieved if business and society consistently orient themselves towards the circular economy. Plastics are indispensable on this long journey, and Covestro is pleased to contribute particularly sustainable new products and materials to this end, tailored to the customer needs of today and tomorrow. Together with our partners, this is how we intend to seize the immense opportunities for sustainable growth."

### "Crafting Connections With You"

Under the motto "[Crafting Connections With You](#)", Covestro intends to establish new collaborations with customers and partners and strengthen existing ties at booth A 75 in Hall 6 at K 2022 from October 19 to 26, as well as on a digital



platform. "Collaboration along key value chains in particular is of great importance for the vision of a full circular economy to succeed," said Dr. Andrea Maier-Richter, Global Head of the TPU Business Entity. "With our more sustainable developments, we support our customers and partners in facilitating their transition to the circular economy and achieving their own climate goals."

To make circular solutions in the product portfolio even more recognizable to customers in the future, Covestro has developed the "CQ" concept. The brand suffix stands for "Circular Intelligence" and indicates the alternative raw material base for the company's products if it is at least 25 percent. Among the first "CQ" products is Desmodur®CQ. Polyurethane foams based on Desmodur®CQ are used, for example, in upholstered furniture, mattresses and thermal insulation.

### **Moving away from fossil resources**

Covestro primarily uses mass-balanced, renewable precursors and plastic waste as alternative raw materials, as well as green electricity. To realize its vision of a circular economy and achieve its ambitious climate targets, the company is also focusing on the future supply of "green" hydrogen and the development of innovative recycling technologies.

All these measures help conserve fossil resources and avoid CO<sub>2</sub> emissions. In the long term, Covestro aims to offer all its products in a climate-neutral<sup>1</sup> version. By 2030, the company plans to invest around one billion euros in circular economy projects. To achieve net zero emissions, Covestro also expects to invest between EUR 250 million and EUR 600 million by 2030.

The high-performance plastic polycarbonate and the important polyurethane (PU) raw material methylene diphenyl diisocyanate (MDI) are already available in larger quantities as climate-neutral products. Like the renewable PU raw material toluene diisocyanate (TDI), they are manufactured using renewable<sup>2</sup> raw materials such as new biomass and biowaste and residual materials, which are allocated to the products by calculation using the mass balance approach. According to a common calculation model<sup>1</sup>, no net CO<sub>2</sub> emissions are generated during production from the cradle to the factory gate.

For its own raw material supply, Covestro cooperates with a number of industrial partners who provide renewable precursors such as mass-balanced acetone, phenol and benzene. Suppliers such as Borealis, Total, Mitsui Chemicals and Mitsui & Co. produce these raw materials at sites certified to the internationally

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<sup>1</sup> This climate neutrality is the result of an internal assessment of part of the product life cycle, from raw material extraction (cradle) to the factory gate of covestro. It is also referred to as "cradle-to-gate" assessment.

<sup>2</sup> Renewable TDI is produced using the mass balance approach using renewable feedstocks – from virgin biomass as well as biowaste and residuals – which are mathematically assigned to the product.



recognized ISCC PLUS standard. At the same time, Covestro is gradually converting its production sites to this standard, which is already the case in Leverkusen, Dormagen, Krefeld-Uerdingen, Antwerp and Shanghai.

Most recently, Covestro announced a collaboration with Neste and South Korean petrochemical company SK geo centric to supply mass-balanced benzene for its MDI production in China. MDI is an important raw material for rigid PU foam, which provides efficient insulation for buildings and the cold chain. Certified polycarbonate, in turn, plays a role in the automotive, electrical and electronics, and medical industries, among others. And TDI is a precursor for PU flexible foam, which is used to make mattresses and upholstered furniture.

Covestro has also signed contracts with energy suppliers such as Ørsted, EnBW, ENGIE, Datang Wuzhong New Energy and others to supply sites in Germany, Belgium and China with electricity from renewable sources.

### **Innovative technologies for chemical recycling**

Hermann-Josef Dörholt, Global Head of the Performance Materials segment, emphasized the great importance of recycling technologies in order to really close loops: "Covestro is taking a committed approach here: using various approaches, we can specifically recover the raw materials we need for the production of our plastics. In addition to the established mechanical recycling of polycarbonate and thermoplastic polyurethane, we are focusing primarily on chemical recycling for this purpose." The aim, he says, is to recycle materials completely in order to save fossil raw materials and CO<sub>2</sub> emissions, while at the same time offering recycled products in virgin material quality.

As examples, Dörholt cites innovative processes for the chemical recycling of mattress foam waste and used rigid PU foam. Together with partners, Covestro has developed a process to chemically recover the two main components from PU mattress foam: the polyol and the precursor to the isocyanate TDI used. The results of the tests conducted to date are promising and are currently being tested in a pilot plant at the Leverkusen site. The project is now to be extended to the industrial processing of flexible foams.

Covestro is also coordinating the EU project CIRCULAR FOAM with 22 partners from nine countries, which is dedicated to the chemical reprocessing of rigid polyurethane foam from building insulation materials and used refrigeration equipment. The products make an important contribution to saving CO<sub>2</sub> emissions and reduced energy consumption, but recycling processes and systematic waste management have been lacking until now. The project aims to save up to one million tons of waste and 2.9 million tons of CO<sub>2</sub> emissions annually in Europe by 2040.



**About Covestro:**

Covestro is one of the world's leading manufacturers of high-quality plastics and their components. With its innovative products and processes, the company contributes to greater sustainability and quality of life in many areas. Covestro supplies customers around the globe in key industries such as mobility, construction and housing, and electrical and electronics. In addition, Covestro's polymers are used in areas such as sports and leisure, cosmetics, healthcare and in the chemical industry itself.

The company is fully aligned with the Circular Economy and aims to become carbon neutral by 2035 (Scope 1 and 2). In fiscal 2021, Covestro generated sales of €15.9 billion. As of the end of 2021, the company produced at 50 sites worldwide and employed around 17,900 people (converted to full-time positions).

**Forward-looking statements**

This press release may contain forward-looking statements based on current assumptions and forecasts made by Covestro AG management. 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 provided here. These factors include those discussed in Covestro's public reports. These reports are available at [www.covestro.com](http://www.covestro.com). The company assumes no obligation whatsoever to update these forward-looking statements or to make them conform to future events or developments.