Covestro: with renewable raw materials on the way to a circular economy

**Biomass-based products – a viable alternative**

**Plants and trees, but also organic waste, contain carbon that can be used as a more sustainable raw material for manufacturing plastics and chemical products. For years, Covestro has been using alternative raw materials of this kind to develop and manufacture its products. In doing so, the company wants to come closer to its vision of complete circularity, but also to meet the rapidly growing interest in sustainable products.**

More and more consumers are paying attention to sustainable products. An important criterion is the origin of the raw materials used. [Covestro](http://www.covestro.com) has been working for years to replace some of the fossil building blocks used up to now with renewable ones. In this way the dependence on crude oil can be reduced. The biomass binds CO2 during its production and thus additionally reduces the ecological footprint. However, a prerequisite for a successful market launch is also that bio-based products show at least the same good properties as petrochemical-based materials and can seamlessly replace them in current production.

**Sophisticated automotive paint**

One example of this trend is a paint hardener whose carbon content comes from 70 percent renewable raw materials. It is used in demanding applications such as in automotive paints and has already been successfully tested in a clear coat under near-series production conditions. The clear coat, which forms the top layer of automotive paint, is scratch resistant, glossy and weather-resistant. In this context, the hardener Desmodur® eco features the same positive qualities as similar fossil-based products. Another clear coat using this hardener even survived unscathed after a 3,000-kilometer trip under the blazing sun through the Australian Outback.

**Environmentally-friendly furniture coatings**

Many years ago, Covestro carried out pioneering work to convert solvent-based coatings to a water base and thus reduce the emission of volatile organic substances. The company now also offers resin and hardener components for water-based furniture coatings, which are partially made from plant-based raw materials and are particularly safe for the environment. Coatings with the dispersion Bayhydrol® eco UV 2877 or the hardener Bayhydur® eco 701-90 are superior to conventional water-based coatings and have already been successfully tested by coating and furniture manufacturers.

**Water-based textile coating**

Aqueous coatings also play a major role in the textile industry and are increasingly replacing solvent-based systems in order to protect the health of employees. Now the water-based raw material Impranil® eco is also available for coating textiles, whose carbon content is based on up to 56 percent plant biomass, replacing a portion of the fossil raw materials previously used.

**Products for beauty**

Covestro develops raw materials for cosmetic products with a biomass content of over 50 percent, without formulators and consumers having to make compromises in terms of quality. The Baycusan® eco series was designed primarily for hairstyling and make-up formulations, but it can also be applied in sunscreens and skincare products.

**Versatile films**

A new film made from the high-performance plastic polycarbonate is also produced partly from biomass: It replaces around 50 percent of the carbon content. Makrofol® EC is the first commercially available plastic product of this type from Covestro. It meets the requirements for polycarbonate films made from petrochemical raw materials and even exceeds these requirements to some extent. Possible applications include the automotive, electrical and consumer goods industries. Covestro is currently working on expanding its existing product portfolio, including for partially bio-based thermoplastic polyurethane (TPU) films of the Platilon® and Dureflex® grades. TPU plastic products with biomass are already available on the market, some of them can also be used in 3D printing applications.

**The future: a broader raw materials base**

While many of these products are produced using plant-based ingredients, Covestro is already working on broadening its biological raw material base in the scope of its current research projects. In the future, the company could also use municipal organic waste and waste wood to develop sustainable products.

(Status: November 2020)

**About Covestro:**

With sales of EUR 12.4 billion in 2019, 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 industries served are the automotive, construction, wood processing and furniture, and electrical and electronics industries. Other sectors include sports and leisure, cosmetics, healthcare and the chemical industry itself. Covestro has 30 production sites worldwide and employs approximately 17,200 people (calculated as full-time equivalents) as of the end of 2019.

**Forward-looking statements**

This press 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. These reports are available at www.covestro.com. The company assumes no liability whatsoever to update these forward-looking statements or to make them conform to future events or developments.