



Press Release

Leverkusen,
May 25, 2021

Covestro and Polymaker collaborate on a polycarbonate filament made from recycled plastic

Covestro AG
Communications
51365 Leverkusen,
Germany

Recycled plastic for 3D printing

- **Reduced CO₂ footprint**
- **Broad product portfolio on display at TCT Asia trade show**

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

[Polymaker](#), a leading manufacturer of 3D printing materials, uses a recycled polycarbonate developed by [Covestro](#), a globally leading materials supplier, to produce Polymaker™ PC-r, the polycarbonate filament for 3D printing made from recycled plastic. The material comes from 19-liter bottles from Chinese water supplier Nongfu Spring, which contain polycarbonate in a fairly pure form. Covestro blends the [plastic waste](#) with virgin material to yield a polycarbonate base that can be extruded into filaments for use in electronics automotive and other industries.

The filament is particularly suitable for brands wanting to make their supply chain more sustainable, especially in combination with 3D printing technology for production on an industrial scale. Compared to virgin material, the filament using recycled material has a lower carbon footprint. The product is also more durable and meets industry-specific requirements such as the Blue Angel and EPEAT seal.

The fact that the waste comes from one single source is an advantage. This means that no prior sorting and identification of the plastics is necessary. The plastic waste is quite pure and can be recycled in a cost-effective manner. In addition, it is available in sufficient quantities. In China, large-volume water bottles are widespread in private households and public places. These are collected and refilled again and again before finally discarded and sent for recycling. This is another example of how Covestro is helping to build a circular economy in collaboration with partners along the value chains.



The high temperature post-consumer product has outstanding thermal stability and strength. Because of its properties, a constant temperature chamber is required to print successfully.

Machine manufacturer INTAMSYS conducted print tests with Polymaker™ PC-r on its FUNMAT PRO 410 printer. The printer can achieve a dual jet temperature of up to 500°C and a platform temperature of up to 160°C. The chamber temperature can be up to 90°C, which prevents warping of printed parts and allows larger and more complex models to be printed more successfully.

Tests have demonstrated that the Polymaker™ PC-r material is extremely easy to process. The test scores show good values for tensile strength, Young's modulus, flexural strength and flexural modulus, which were slightly higher than standard polycarbonate.

Extensive range of products at the TCT Asia trade show

Polymaker will be presenting a wide range of materials for 3D printing, ranging from high-performance plastics to unique aesthetic solutions, at booth number F44 at TCT Asia, the 3D printing trade show in Shanghai, China, from May 26-28, 2021.

At the trade show, Covestro and its additive manufacturing business, including the newly acquired business from DSM, will be exhibiting on two booths as both had registered separately prior to the transaction. Visitors to the trade show are invited to visit Covestro at booth number E46 and the former DSM AM at a booth number C48 to learn more about the company's broadened product portfolio.

About Covestro:

With sales of EUR 10.7 billion in 2020, 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, sustainable solutions for products used in many areas of everyday life. In doing so, Covestro is fully aligning itself to the Circular Economy. Its main customers are the automotive and transport industries, the construction industry, the furniture and wood processing industries, and the electrical, electronics, and household appliance industries. Other sectors include sports and leisure, cosmetics, healthcare and the chemical industry itself. As of the end of 2020, Covestro produces at 33 sites worldwide and employs around 16,500 people (converted to full-time positions).

About Polymaker:

Polymaker is a company that produces advanced 3D printing materials specifically engineered for a wide range of applications across many industries.



At the heart of Polymaker is a large research and development laboratory which drives the company forward through constant innovation and testing. All Polymaker materials are formulated and optimized for 3D printing while maintaining the unique properties inherent to the respective base polymer. Find more information at www.polymaker.com

About INTAMSYS:

INTAMSYS is a world-leading high-tech company providing 3D printing and industrial direct additive manufacturing solutions for high-performance materials. Focusing on aerospace, aviation, automotive, electronic manufacturing, consumer goods, healthcare, scientific research and other industries, the company provides comprehensive additive manufacturing solutions from functional test prototyping, tooling and fixture manufacturing to direct mass production of final products, covering equipment, software, high-performance materials and printing services.

For further information, please visit www.intamsys.com

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. The company assumes no liability whatsoever to update these forward-looking statements or to make them conform to future events or developments.