

Press Release



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One of the most diverse polymer materials portfolios at Formnext 2021

Covestro launches four new materials across multiple 3D printing technologies

Materials manufacturer [Covestro](#) introduces at [Formnext 2021](#) trade fair four new materials spanning different 3D printing technologies, including a soluble support material for Fused Deposition Modeling and Fused Filament Fabrication (FDM/FFF), a soft material for Selective Laser Sintering (SLS) with a high energy return, and two highly flowable thermoplastic polyurethane (TPU) powders for SLS and High Speed Sintering (HSS).

Addigy® FPC SOL1 HT provides a *soluble support material* for FDM printing of overhangs and cavities in high temperature materials such as polyether ether ketone (PEEK), with up to 100 percent infill of the support structures. The filament is easy to print without pre-drying. After printing, the translucent material can be removed easily and quickly by dissolving in a standard chemical solvent resulting in smooth surfaces. Both solvent and support material can be reused after a simple distillation process, making it a more sustainable solution.

Soft, elastomeric materials typically don't 3D print easily. With Arnitel®¹ AM3001 (P) for SLS, Covestro material scientists successfully combined both. A Shore hardness of A88 and D35 with an excellent elongation at break, the thermoplastic copolyester exhibits a *very high energy return*. It processes easily and without common side effects such as odors. The material is compliant with Directive 2009/48/EC on Toy Safety and pending biocompatibility approval. The material shall be available for customer evaluation and development early in 2022.

¹ Arnitel® is a licensed trademark of DSM.



Covestro is announcing both an SLS and an HSS version of its *thermoplastic polyurethane (TPU) powder Addigy® PPU 86AW6*. These materials exhibit excellent rebound, easy post-processing and high reuse rate of unsintered powder. Their easy handling during the printing process and properties make them suitable for a broad range of applications.

The four new materials complement Covestro's recently launched Somos® resins for SLA and DLP, and the company's relaunch of the Low Smoke glass-filled PA6-66 flame retardant filament [that they acquired in 2020](#).

Covestro now offers one of the largest choices in polymers for 3D printing since its [acquisition of the additive manufacturing business from DSM](#) earlier this year.

"If we want manufacturers to increasingly adopt additive manufacturing in industrial production, they need access to many more functional materials with properties matching their applications in terms of performance, regulations, safety and quality," said Hugo da Silva, Head of Additive Manufacturing at Covestro. "It takes solid material expertise to design materials that exhibit the required properties, not only when coming off the printer though also over time, in varying functional and environmental conditions."

Covestro material scientists and application experts will be at the Covestro booth to discuss their innovations, the current state of engineering-grade materials for additive manufacturing, various test methods developed by industry groups to replicate application conditions in vertical markets, and what to consider when selecting materials for functional applications.

Visit Covestro at Formnext 2021, booth C11 in Hall 12.1.

About Covestro

With 2020 sales of EUR 10.7 billion, Covestro is among the world's leading 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 daily life. In doing so, Covestro is fully committed to the circular economy. The main industries served are the automotive and transportation industries, construction, furniture and wood processing, as well as electrical, electronics, and household appliances industries. Other sectors include sports and leisure, cosmetics, health and the chemical industry itself. At the end of 2020, Covestro has 33 production sites worldwide and employs approximately 16,500 people (calculated as full-time equivalents).



Learn more about Covestro additive manufacturing on addigy.covestro.com; for the former-DSM-now-Covestro additive manufacturing business please visit am.covestro.com

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.