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Arkema Expands Composite 3D Printing to Its High-Performance Material Range

Arkema is associating with new partners and expanding the use of its high-performance solutions to the 3D manufacturing of composite materials, a major development in lightweight materials. This new technology, which combines the power of 3D printing and composite materials where Arkema has a leading position, will offer new perspectives and new applications in the aeronautics, automotive, energy and construction sectors to meet the growing demand for lightweight materials.

Arkema, a pioneer and leader in high-performance polymers for 3D printing and composites, continues its development in additive manufacturing and provides innovative new solutions for manufacturing continuous fiber composite parts using 3D printing, a technology that brings together 3D printing and composites.

The Group is therefore coming together with new partners to develop novel, more efficient materials that offer fresh perspectives in applications with high technical requirements to meet the growing demand for lightweight materials.

[Continuous Composites](#) and Sartomer, an Arkema Business Line, recently announced a partnership combining Continuous Composites' patented continuous fiber 3D printing technology (CF3D®) with Sartomer's N3xtDimension® UV-curable resin solutions. This technology combines the power of composite materials with a snap-curing 3D printing process to create a mold-free and out-of-autoclave composite manufacturing technology. CF3D significantly reduces the cost of manufacturing with lightweight materials offering users greater flexibility and speed of production compared to traditional composite processes. Through this joint development agreement, Sartomer is investing in the R&D and commercialization of resin solutions tailored for CF3D meeting the mechanical properties of varying industries.

Furthermore, Arkema has partnered with **9T Labs** (Zurich), a start-up specializing in the 3D printing of thermoplastic composites that has developed a technology that automates the manufacture of composites using additive manufacturing (AM) and advanced software algorithms. This technology will enable the mass production of composite parts using Arkema's Kepstan® PEKK: the exceptional properties of the Kepstan® PEKK polymer together with the 9T Labs design software facilitate the manufacture of high-performance parts. Arkema and 9T Labs will jointly develop the market, focusing on high-volume mass-production applications and material certification in order to accelerate large-scale adoption of the technology.

With these partnerships, the Group will continue to innovate, in collaboration with its customers and technology partners such as Continuous Composites and 9T Labs, in order to convert new applications to 3D printing and accelerate the deployment of these technologies in a wide range of industries and applications.

These projects form part of the Group's strategy of proposing innovative solutions for lightening structural materials, one of its six innovation platforms, thanks to composites and 3D printing. With its unique range of high-performance polymers, its industrial and academic partnerships, and its research capabilities, Arkema is a pioneer and leader in these markets.

*A designer of materials and innovative solutions, **Arkema** shapes materials and creates new uses that accelerate customer performance. Our balanced business portfolio spans high-performance materials, industrial specialties and coating solutions. Our globally recognized brands are ranked among the leaders in the markets we serve. Reporting annual sales of €8.8 billion in 2018, we employ approximately 20,000 people worldwide and operate in close to 55 countries. We are committed to active engagement with all our stakeholders. Our research centers in North America, France and Asia concentrate on advances in bio-based products, new energies, water management, electronic solutions, lightweight materials and design, home efficiency and insulation. www.arkema.com*

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