

Colombes - November 14, 2019

## Arkema "makes its mark" at Formnext 2019

# Arkema, a leader in advanced polymers and liquid resins for 3D printing, is taking steps forward to help customers accelerate additive manufacturing of high-tech parts. The Group has expanded its list of industrial partnerships and collaborative research programs all along the supply chain.

During Formnext, taking place from November 19 to 22 in Frankfurt (Germany), Arkema will exhibit its wide range of advanced materials for 3D printing and will unveil several new products and strategic partnerships with key players in the aeronautics, automotive, sports, and medical sectors.

#### New Materials in the Range of 3D Printing Solutions by Arkema

With the 3D printing solutions by Arkema platform created last year, Arkema is furthering its involvement in the this rapidly growing market and is expanding its range of advanced materials for all major additive manufacturing technologies.

N3xtDimension® liquid resins are pioneering solutions for UV curable 3D printing with unique engineered resins and custom liquid resin systems. Three new resins are being launched at the show:

- High-temperature-resistant resin N3D T-1105
- Low-viscosity Casting resin N3D C-1115
- Impact modifier resin PRO22362,

Arkema, which already offers a wide range of thermoplastic polymer powders (Rilsan® polyamide 11 fine powder, Orgasol® Invent Smooth powders, and Kepstan® polyetherketoneketone [PEKK]), is enhancing its range with the development of SLS PEBAX® powder. This partially bio-based thermoplastic elastomer for Selective Laser Sintering (SLS) provides the ideal combination of the usual strength of polyamides plus the flexibility and elasticity of polyethers/polyesters, perfect for sports applications.

Arkema is further supplementing its range of advanced polymers for filament extrusion printing technologies (Rilsan® polyamide, Kepstan® PEKK [polyetherketoneketone], and Kynar® PVDF) with MMA resin-based filaments with excellent mechanical properties, good UV resistance, and excellent optical performance.

#### **Enhancement of Strategic Partnerships**

**Kimya:** Launched in 2018, the partnership with Armor 3D as part of Kimya Lab has enabled the development of a new Kepstan<sup>®</sup> PEKK-based filament. This highly innovative material with very high mechanical and thermal strength is specially adapted for additive manufacturing of very high-performance technical parts used in the demanding markets of aeronautics, railway and automotive manufacturing.

As part of this partnership, another new filament, the PEBA-S Kimya filament made from our PEBAX® elastomer, has been developed for applications requiring lightness, a good energy return, and resistance to low temperatures, such as in the sports sector, for example. "This model of co-industrialization is key for ARMOR in the development of solutions adapted to industrial applications" corroborates Pierre-Antoine Pluvinage, Business Development Director, Kimya – Additive Manufacturing by ARMOR.

**Stratasys** launches Antero<sup>™</sup> 840CN03, a new PEKK-based polymer leveraging Arkema's Kepstan<sup>®</sup> PEKK technology. The new Antero<sup>™</sup> material with consistent electrostatic discharge (ESD) performance is ideal for printing high temperature- and chemical-resistant parts particulary suited for aerospace and industrial applications.

Following the successful introduction of as Rilsan<sup>®</sup> PA11's as printed material parameters in **Autodesk**'s Fusion 360 earlier this year, Arkema and **Autodesk** will further expand this collaboration to include Arkema's specialty Orgasol<sup>®</sup> PA12 powders. Fusion 360 customers will soon be able to run hundreds of generative design outcomes that are ready to print based upon PA12 powder print profiles.

## Visit our booth #121-E99 Hall 12.1 to talk with our experts and discover our range of solutions dedicated to 3D printing

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  $\in$ 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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