Exentis Group demonstrates industrialisation of its 3D screen printing Additive Manufacturing technology

February 25, 2020



Exentis showcased its 3D Mass Customization technology during the opening of its new 3D-innovation centre (Courtesy Exentis Group AG)

Exentis Group AG, located in Stetten, Switzerland, demonstrated its 3D Mass Customization[®] technology during the recent opening of its new 1,200 m² customer innovation centre. The company's industrialised Additive Manufacturing technology offers rapid series production of millions of components, in either metal or ceramic based materials, using a screen-printing process followed by a final sintering stage.

Exentis' technology can be used to additively manufacture components for a wide range of applications and industrial sectors. The eco-friendly cold-printing process is said to generate ultra-fine structures without rework, with wall thicknesses and cavities down to 70 μ m being possible. The process allows for complex designs with undercuts and closed cavities, without any supporting structures. Porosity can be adjusted to between 0 and 40% and surface roughnesses of Ra $\leq 2\mu$ m can be achieved.

According to the group, productivity is comparable to that of injection moulding (metal or polymer), with a major advantage being the rapid setup time thanks to not needing expensive tooling that takes many weeks to

Customers have the option to purchase the Additive Manufacturing systems for in-house production, with guidance on the appropriate materials, development and supply of specific paste systems, screens, process technology and training provided by Exentis. Alternatively, Exentis can manufacture components for customers at its operations in Stetten or Germany.



A copper sample part (left), a metallic forcep for medical applications (centre) and a casting filter for lowpressure casting of aluminium rims (right) (Courtesy Exentis Group AG)

Exentis reports that it has already installed three inline 3D-production units at customer sites, each with the capacity to produce several millions of parts.

www.exentis-group.com (http://www.exentis-group.com/)

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