

Stratasys offers additive manufacturing materials that comply with European ESD standards and enable reliable and repeatable 3D printing, such as this robot gripper.

The Right Material Offers a Better Solution

Siemens AG in Karlsruhe innovates automation in production using Stratasys ABS-ESD7 material

Siemens AG is a global company with a focus on electrification, automation and digitization, making it one of the world's largest providers of energy-efficient and resource-conserving technologies. The Siemens Manufacturing-Karlsruhe (MF-K) site is mainly focused on process automation and is a large part of the Digital Industries division. MF-K creates products for process automation, industrial communication and identification, as well as robust, customer-specific industrial PCs.

Founded in October 2018, the Innovation Laboratory within MF-K was tasked with testing and developing solutions using disruptive technologies like 3D printing. These solutions are explored in order to improve and accelerate processes, aiding employees in their daily work.

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Stratasys offers materials that meet European ESD standards coupled with a reliable and repeatable production process.”

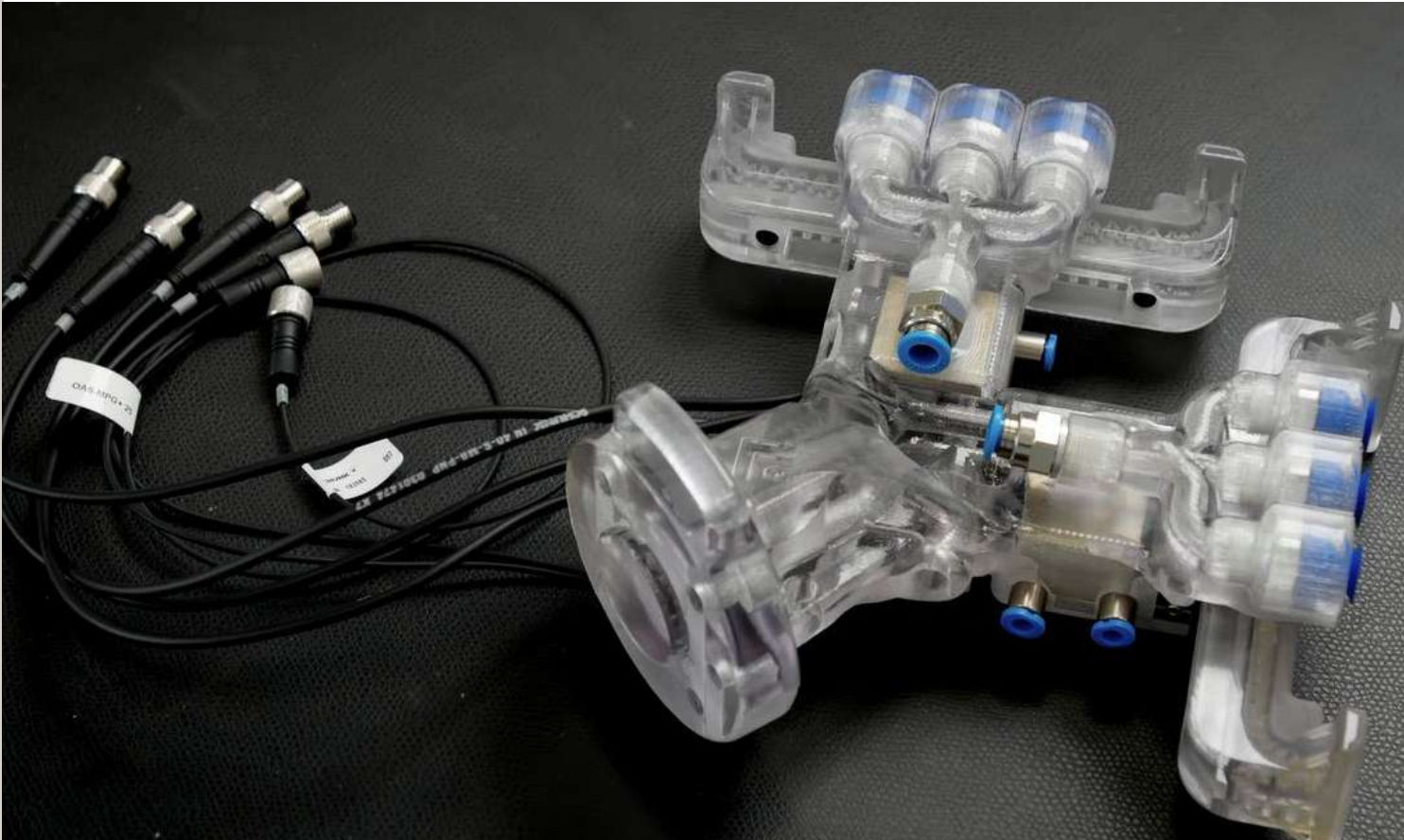
Benjamin Heller

**Project Lead Disruptive Technology,
Siemens Digital Industries**



“The Fortus 450mc and the ABS-ESD7 material offer the ideal combination to optimally meet our requirements,” explained Benjamin Heller, Project Lead of Disruptive Technology at Siemens Digital Industries.





MF-K uses Stratasys systems to print assembly fixtures, product-dependent trays and robotic grippers.

The daily business of MF-K is characterised by highly-varied products produced in small quantities. For mass production to be cost effective, it is necessary to reduce the complexity of the production system. This is attained by continuously improving processes, increasing production flexibility, reducing throughput times and implementing innovative automation solutions quickly and cost-effectively. To achieve these goals, the Innovation Laboratory of MF-K uses Stratasys® FDM® and PolyJet™ systems.

As an electronics plant, MF-K works with components on a daily basis that are electrostatically sensitive. These can be damaged or even destroyed by electrostatic discharge (ESD) during use. Therefore, it's essential to comply with the necessary ESD standards to prevent this from happening.

“Stratasys offers additive manufacturing materials that comply with European ESD standards and enable reliable and repeatable 3D printing. The Fortus 450mc™ and the ABS-ESD7™ material offer the ideal combination to optimally meet our requirements,” explained Benjamin Heller, Project Lead Disruptive Technology, Siemens Digital Industries. ABS-ESD7 is a static-dissipative FDM material suitable for applications involving sensitive electronics.

The Fortus 450mc can produce durable and dimensionally stable additive components from high-performance thermoplastics, which are ideally suited for use in a production environment.



The Fortus 450mc and the ABS-ESD7 material offer the ideal combination to optimally meet our requirements.”

Benjamin Heller

**Project Lead Disruptive Technology,
Siemens Digital Industries**

These components for automation solutions are developed, tested and integrated in the innovation laboratory. Siemens MF-K uses Stratasys 3D printers to make assembly fixtures, product-dependent trays and robotic grippers.

“Especially with regards to the robot grippers, additive manufacturing has advantages over conventional methods. The grippers can be designed compactly and applications such as complex vacuum channels in the basic body can be realized. It is also possible to print flexible structures,” said Heller.



For the robot grippers, additive manufacturing enables the compact design, and applications such as complex vacuum channels in the basic body can be realized.

Siemens uses additive manufacturing within its company sites, reducing time-to-market and achieving higher productivity and flexibility.





The Innovation Laboratory tests and develops solutions using disruptive technologies, to improve and accelerate processes, aiding employees in their daily work.

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