



SABIC's Carbon Fiber-Reinforced Material used to Produce the World's First 3D-Printed Vehicle at IMTS 2014

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ABIC delivered the innovative materials and processing expertise needed to create a first-of-

its-kind concept vehicle using advanced 3D printing (also known as additive manufacturing) during the International Manufacturing Technology Show (IMTS) in Chicago this week. This fully functional vehicle being printed from scratch and assembled by automotive design firm Local Motors, is expected to be driven off the tradeshow floor on Saturday.

This ground breaking event showcases a long-awaited solution to a major manufacturing challenge: how to avoid the significant investments in tooling and time necessary to produce large free form designs. Local Motors collaborated with Cincinnati Incorporated, a large-scale manufacturing system builder; Oak Ridge National Laboratory (ORNL), a pioneer in advanced materials research; and SABIC to develop and validate the technology and materials needed to deliver large format 3D printing technology.

SABIC's LNP™ STAT-KON™

Carbon fiber-reinforced compound was chosen for its excellent strength-to-weight ratio and high stiffness, which minimizes warping during the 3D printing process, enabling enhanced aesthetics and performance. Additionally, SABIC's expertise in this emerging technology, including material selection and validation, equipment specification and processing, were instrumental throughout the development process.

"Involving SABIC at the inception, with their experience in advanced processing technology and material validation, was critical to the project's success," said Andrew Jamison, CEO for CINCINNATI. "Visitors will get a first-hand look at the future of additive manufacturing and its possibilities to transform the industry with our Big Area

Additive Manufacturing (BAAM) machine running SABIC material and printing polymer components 200-500 times faster and 10 times larger than today's additive manufacturing machines."

Tony Cerruti, Marketing Director, Americas, for SABIC's Innovative Plastics business commented, "SABIC's materials and processing knowledge together with this advanced additive manufacturing technology will help to address the manufacturing challenges our customers are facing – the high cost to innovate. We believe that this technology has far-reaching potential for applications across the multiple industries that SABIC serves, bringing designs to market faster and enabling mass customization."

The concept vehicle event stemmed from a Local Motor's Design Challenge which resulted in the submission of over 200 entries from 30+ countries.

The winning concept, Strati, inspired the full sized 3D-printed prototype.

For technical product inquiries, please contact us at www.sabic-ip.com/prtechinquiry.

ABOUT SABIC

Saudi Basic Industries Corporation (SABIC) ranks among the world's top petrochemical companies. The company is among the world's market leaders in the production of polyethylene, polypropylene and other advanced thermoplastics, glycols, methanol and fertilizers.

SABIC recorded a net profit of SR 25.3 billion (US\$ 6.7 billion) in 2013. Sales revenues for 2013 totaled SR 189 billion (US\$ 50.4 billion). Total assets stood at SR 339.1 billion (US\$ 90.4 billion) at the end of 2013.

SABIC's businesses are grouped into Chemicals, Polymers, Performance Chemicals, Fertilizers, Metals and Innovative Plastics. SABIC has significant research resources with 19 dedicated Technology & Innovation facilities in Saudi Arabia, the USA, the Netherlands, Spain, Japan, India, China and South Korea. The company operates in more than 45 countries across the world with around 40,000 employees worldwide. SABIC manufactures on a global scale in Saudi Arabia, the Americas, Europe and Asia Pacific.

Headquartered in Riyadh, SABIC was founded in 1976 when the Saudi Arabian Government decided to use the hydrocarbon gases associated with its oil production as the principal feedstock for production of chemicals, polymers and fertilizers. The Saudi Arabian Government owns 70 percent of SABIC shares with the remaining 30 percent held by private investors in Saudi Arabia and other Gulf Cooperation Council countries.



Local Motors collaborated with large-scale manufacturing system builder Cincinnati Incorporated, advanced materials research pioneer, Oak Ridge National Laboratory (ORNL), and SABIC to develop and validate the technology and materials needed to deliver the world's first 3D-printed vehicle, the Strati, at IMTS 2014. (Photo courtesy of SABIC)

ABOUT INNOVATIVE PLASTICS

SABIC's Innovative Plastics business is a leading, global supplier of engineering thermoplastics with an 80-year history of breakthrough solutions that solve its customers' most pressing challenges. Today, Innovative Plastics is a multi-billion-dollar company with operations in more than 35 countries and approximately 9,000 employees worldwide. The company continues to lead the plastics industry with customer collaboration and continued investments in new polymer technologies, global

application development, process technologies, and environmentally responsible solutions that serve diverse markets such as Healthcare, Transportation, Automotive, Electrical, Lighting and Consumer Electronics. The company's extensive product portfolio includes thermoplastic resins, coatings, specialty compounds, film, and sheet. Innovative Plastics (www.sabic-ip.com) is a wholly owned subsidiary of Saudi Basic Industries Corporation (SABIC).