



Yazaki is driving speed to market in automotive

When Yazaki - a global leader in manufacturing automotive parts - first came across Somos® EvoLve 128, they believed they had found a revolutionary new additive material. Since using the product in their rapid prototyping center, Yazaki has seen 20% faster production, better capacity and ease of use. It has prompted Yazaki to say “Somos® EvoLve 128 is one of the best, all-purpose SLA material that we’ve seen”.

Continuous rapid prototyping improvement

Yazaki, a global leader in automotive power, data and display technologies, produces a wide range of connection and control products and is the world's leading manufacturer of wire harnesses and electronic components. Yazaki supplies most of the world's leading automotive OEMs including Ford, General Motors, Fiat Chrysler Automobiles, Toyota, Honda, Renault-Nissan and Volkswagen.

The company's North American headquarters, located near Detroit, Michigan, is the research and development center for automotive electronic devices and the company's largest stereolithography (SLA) and additive manufacturing facility.

Additive manufacturing materials have played a critical role in enabling the company to reduce the time of product design and development and they are always looking at the latest advancements to increase efficiency to provide their customers with the best service possible.

Yazaki, a long-standing user of Somos® products, were very excited to learn of a new, durable SLA material - Somos® EvoLve 128. This material produces accurate, high-detailed parts designed for easy finishing that are almost indistinguishable from finished traditional thermoplastics, making it perfect for building parts and prototypes for functional testing applications.

“Additive materials have tended to be quite fragile, so one area we were looking to improve was durability, especially for white, opaque materials which customers like because they look and feel like injection-molded parts,” says Mark Wynn, Technical Specialist at Yazaki's North American Rapid Prototyping Group.

“But these products are often very thick and viscous so cleaning, for example, is difficult because excess material is hard to remove from recesses and fine features. We were looking for something that combined the best of all worlds - low viscosity and good material properties. When we learned about Somos® EvoLve 128, we believed it was something significantly new in the industry.”

Yazaki started using Somos® EvoLve 128 as a key material on one of their large-frame SLA machines at the R&D center. Somos® EvoLve 128 is ideal for large SLA devices for its versatility, as this is an all-purpose material that can be used for various applications, avoiding the need to swap out different materials.

Yazaki engineers use Somos® EvoLve 128 to build prototype parts for various applications such as design verification, optimization, serviceability and packaging studies, as well as communication tools to share new concepts with their customers.

20% faster production than other materials

Yazaki discovered several significant benefits of using Somos® EvoLve 128 – speed of production, ease of handling and increased capacity. They estimate that, conservatively, Somos® EvoLve 128 can be processed up to 20 percent faster than comparable SLA materials. During a typical week, Yazaki runs one 10-hour shift a day. A build using existing SLA resins takes about 12 hours, while Somos® EvoLve 128 only takes 8 to 9 hours. That frees up enough time for Yazaki to run one build during the day and have a second build running overnight, effectively doubling their capacity.

Since Somos® EvoLve 128 is a less viscous material, it is much easier to clean. Yazaki estimates that typical finishing processes require 50 percent less manpower. Wynn says, “The difference between finishing with Somos® EvoLve 128 and other products is like wiping a finger print off a glass bottle compared to scrubbing away at an adhesive sticker. If we’re using less manpower and producing parts faster, it increases our capacity, efficiency and reduces the cost of each part. That’s the real advantage.”

Reducing time to market

As well as improving their operations, Yazaki is passing on the benefits of Somos® EvoLve 128 to their customers. “Our customers are receiving parts faster because we pass on the time savings,” says Wynn. “Average turnaround time to a customer is two working days, but with Somos® EvoLve 128 we can have parts back in a day. Our customers get something twice as fast as usual which allows them to go through multiple iterations of their concept faster, ultimately speeding up time-to-market.”

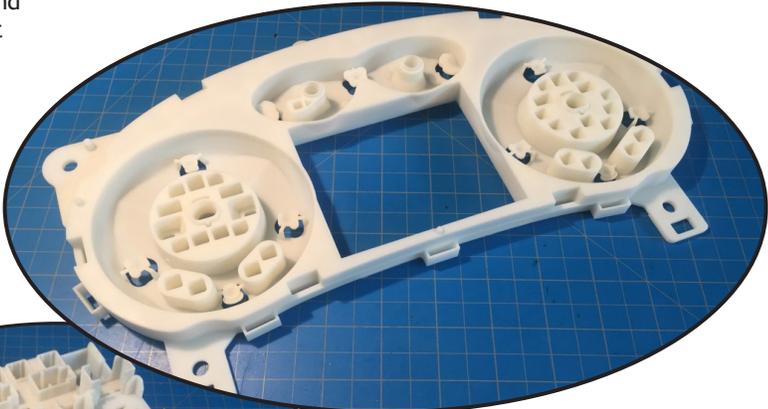
Great, all-purpose SLA material

“Most of the time in the additive materials industry, you are having to compromise between speed and material quality,” says Wynn. “Somos® EvoLve 128 is fast and also has great material properties. We’ve been running SLA machines for over 20 years and Somos® EvoLve 128 is one of the best, all-purpose SLA materials that we’ve seen. If I have a material that produces 50 percent more parts and those parts take less manpower and less time to create, I’ve just increased my revenue and competitive advantage.”

“Most of the time in the additive materials industry, you are having to compromise between speed and material quality. Somos® EvoLve 128 is fast and also has great material properties. We’ve been running SLA machines for over 20 years and Somos® EvoLve 128 is one of the best, all-purpose SLA materials that we’ve seen. If I have a material that produces 50 percent more parts and those parts take less manpower and less time to create, I’ve just increased my revenue and competitive advantage.”

**Mark Wynn, Technical Specialist
Rapid Prototyping Group - Yazaki North America, Inc.**

Instrument cluster housing created with Somos® EvoLve 128



Power distribution center made using Somos® EvoLve 128

