

# DSM material helps global automotive supplier increase production by 20%

Global automotive supplier, Yazaki, is using DSM additive manufacturing materials to improve production by up to 20 percent, grow revenue and increase competitive advantage. This has prompted Yazaki to say, “Somos® EvoLve 128 is one of the top, all-purpose SL materials that we’ve seen.”

#### Customer

Yazaki

#### Challenges

- Help customers improve manufacturing operations
- Find practical, all-purpose additive manufacturing materials

#### Solution

- Somos® EvoLve 128

#### Benefits

- Helps increase production by up to 20%
- Reduces finishing time and effort by up to 50%
- Cuts prototype turnaround

time from two days to one

- Maximizes time and investment in 3D printing equipment
- Offers a versatile, all-purpose material for various applications
- No need to swap out different materials



*“With other additive manufacturing materials, you compromise between features and quality. We’ve been running SL machines for over 20 years and Somos® EvoLve 128 is one of the top, all-purpose materials we’ve seen. If you have a material that produces more parts in less time, with less effort, then you’re increasing revenue and competitive advantage.”*

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

## Challenges

At the regional headquarters of one of the world’s leading automotive suppliers near Detroit, Michigan, additive manufacturing materials play a critical role in reducing product design and development time. But it’s been a challenge to find a material that doesn’t compromise detail and quality.

Detroit is the electronics R&D center and largest stereolithography (SL) facility for Yazaki, a global leader in automotive power, data and display technologies. Yazaki produces a wide range of connection and control products and is the world’s leading manufacturer of wire harnesses and electronic components. The company supplies most of the world’s leading automakers, including Fiat Chrysler Automobiles, Ford, General Motors, Honda, Renault-Nissan and Toyota.

Yazaki is a long-standing user of DSM products. The material, Somos® EvoLve 128, produces accurate, highly detailed parts designed for easy finishing. The end result is nearly indistinguishable from finished traditional thermoplastics, making it perfect for building parts and prototypes for functional testing applications.

## Solution

Some additive materials tend to be quite fragile, so one area that Yazaki wanted to improve was durability, especially for white, opaque materials, which customers like because they look and feel like injection-molded parts. However, these products are often very thick and viscous. Cleaning, for example, is difficult because excess material is hard to remove from recesses and fine features.

### Best of all worlds

*“Yazaki was looking for a material 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.”*

Mark Wynn, Technical Specialist, Yazaki

Yazaki started using Somos® EvoLve 128 as a key material on its large-frame SL machines. Somos® EvoLve 128 is ideal for this type of device because it is a versatile material that can be used for various applications, omitting the need to change materials between projects.

The company’s engineers use Somos® EvoLve 128 to build prototype parts for various applications, such as design verification, optimization, serviceability and packaging studies.

## Benefits

Yazaki discovered several significant benefits of using Somos® EvoLve 128: speed of production, ease of handling and increased capacity. The company estimates that Somos® EvoLve 128 can be processed up to 20 percent faster than comparable materials. During a typical week, Yazaki runs one 10-hour shift a day. A build using existing resins takes about 12 hours, while Somos® EvoLve 128 only takes eight to nine hours. This frees up enough time for Yazaki to run one build during the day and a second overnight, effectively doubling capacity.

A less viscous material, Somos EvoLve® 128 is easy to clean. Yazaki estimates that typical finishing processes require 50 percent less labor. 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 labor and producing parts faster, it increases our capacity, efficiency and reduces the cost of each part. That’s the real advantage.”

Yazaki customers are feeling the benefits of Somos® EvoLve 128 as well. “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.”

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