

Toy maker triples sales, gains market share and accelerates manufacturing thanks to high-performance 3D printing

Amloid is a US-based toy maker succeeding in the cut-throat toy market where million-dollar deals are lost through poor-quality presentation models and slow manufacturing. Since partnering with SICAM and using DSM additive manufacturing materials, Amloid has seen sales triple and its products replace global brands on prime retail shelves.

Executive Summary

Customer

Amloid Corporation

Challenges

- Niche player operating in the cut-throat retail toy market
- Existing rapid prototyping slow, inaccurate and fragile

Solution

- DSM Somos® EvoLve 128
- SICAM partnership

Benefits

- Huge impact on business growth and expansion
- Helps triple sales, increases market share

- Quality rapid prototyping pushes leading brand off shelves
- Cuts time-to-market by 50%
- Faster, accurate tooling process delivers 48-hour turnaround



“Amloid has tripled its sales and is gaining market share against some of the world’s leading toy makers. And SICAM and DSM have made a significant contribution toward achieving that goal. But it’s a tough, zero-sum game and you either win the million-dollar deal or you’re out. So whatever competitive edge we can gain - by using advanced 3D printing and prototyping to improve manufacturing and reduce costs - means our retail customers get higher margins with our products.”

Mike Albarelli Jr., President, Amloid Corporation

Challenges

The retail toy market is extremely competitive and operates on tight margins and fast time-to-market. Toy manufacturers compete to get their products on to prime shelf-space with leading toy retailers like Walmart, Kmart and Amazon. Competition, especially from the Far East, has resulted in many US toy makers going out of business.

One business that has bucked the trend is Amloid Corporation, a niche US toy manufacturer, founded in 1916. It produces leading brand products such as Tonka, Crayola and Kids@Work.

To face down tough market conditions, Amloid needed to reduce costs, shorten production cycles, and enhance the sales process by improving rapid prototyping. It used to make prototypes by hand and more recently used stereolithography techniques and additive manufacturing materials. But they required a lot of finishing, lacked accuracy for engineering, and often materials would break especially when shipped to retailers.

Solution

Winning prime retail estate

“Amloid is a small company compared to some of the big players, but we own shelf space that many manufactures would like to get their hands on. Our costs must be spot on. If a mold is designed and priced to run at a 24-second cycle and a 200gs weight we have to hit that. DSM and SICAM really upped our game in terms of manufacturing accuracy and getting it right first time.”

Mike Albarelli, President, Amloid Corporation

Amloid was introduced to SICAM, a DSM business partner in New Jersey, US. Mike Albarelli Jr., President, Amloid Corporation, says, “We’d tried several different prototyping options, but nothing came anywhere near the quality of the DSM materials for 3D printing or SICAM’s rapid prototyping skills, knowledge and unique product development experience. Today, around 95 percent of our rapid prototyping work is through SICAM, using DSM 3D printing materials.”

Somos® durability and accuracy

“The toy industry sales cycle is very visual. Retailers want to see and touch products before ordering. The advantage of the DSM Somos® EvoLve 128 material is durability and easy finishing, which is great for presentation models. Material accuracy makes it easy to spot and resolve design issues early on. Somos® EvoLve 128 is the most accurate material for producing injection-molded products. When Amloid got the truck mold, it was producing and shipping product the same day - that’s unheard of in the toy industry.”

Doug Campbell, Co-Founder, SICAM
(www.sicam.com)

SICAM has worked with Amloid on several projects, one of which was a Tonka-branded toy truck with blocks. Prototypes were produced using Somos® EvoLve 128 for 3D printing, from DSM Additive Manufacturing. The prototype comprised 11 parts and three iterations to finalize for engineering. SICAM expertise enabled Amloid to avoid costly, time-consuming mistakes that only show up in tooling and manufacturing stages.

Benefits

Amloid collaboration with DSM and SICAM is having a huge impact on business success by helping to triple sales and gaining market share from major competitors.

The Tonka Block Truck is now being sold through all the top toy retailers in the US and worldwide. It has been so successful that it has replaced a similar brand leader that was already on shelves which Albarelli says is very difficult to do.

One critical benefit has been reducing the concept-to-manufacture process from 12 to 6 months. Albarelli says, “Cutting time-to-market by 50 percent is an incredible improvement. It enables us to invest more in new product development because DSM 3D printing materials and SICAM help make prototyping quick, cost effective and efficient.”

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