

From Weeks to Hours:

How PolyJet ToughONE™ Reinvented Packaging Development at J.L. Clark

With production-like polypropylene performance, living hinges, and full-color graphics, PolyJet ToughONE™ transformed how J.L. Clark designs, tests, and validates packaging concepts before manufacturing.



About J.L. Clark

Founded in 1904, J.L. Clark is a U.S. manufacturer of decorated metal and plastic packaging for leading consumer packaged goods brands. The company serves markets including confectionery, health and beauty, spices, smokeless tobacco, and wine and spirits, helping customers bring premium packaging to market with the quality, functionality, and shelf appeal consumers expect.

At the center of that effort is J.L. Clark's packaging engineering team, which designs, prototypes, and tests new packaging concepts to help customers move from concept to production as quickly and efficiently as possible.

The Challenge: Helping Customers Move Faster

For J.L. Clark, speed is a competitive advantage. Customers expect realistic prototypes early in the development process so they can evaluate designs, gather feedback, and make decisions before investing in production tooling.

Before adopting advanced 3D printing, creating those prototypes meant producing prototype injection molds, an approach that was both costly and time consuming.

"Creating prototypes for our customers was challenging before 3D printing because prototype molds are costly and have long lead times," says the packaging engineering team. "Any revisions or updates would also be very costly and time consuming."

The team also faced a technical hurdle. Many of J.L. Clark's packaging designs are injection molded from polypropylene and incorporate living hinges, making it difficult to find a material that could accurately reproduce thin walls, snap fits, and living hinges while closely matching the look and feel of the final production part.



The Solution: Bringing Packaging Concepts to Life Faster

To accelerate development while maintaining the quality customers expect, J.L. Clark adopted PolyJet™ additive manufacturing technology with the PolyJet ToughONE™ material. The combination gives the engineering team the ability to produce highly accurate functional prototypes with thin walls, durable snap fits, living hinges, and full-color graphics that closely resemble finished polypropylene parts.



The ability to produce accurate parts with living hinges in a material that looked and performed like polypropylene was critical. We also liked the ability to include our customers' artwork and branding directly on the printed samples."

Packaging Engineering Team

J.L. Clark

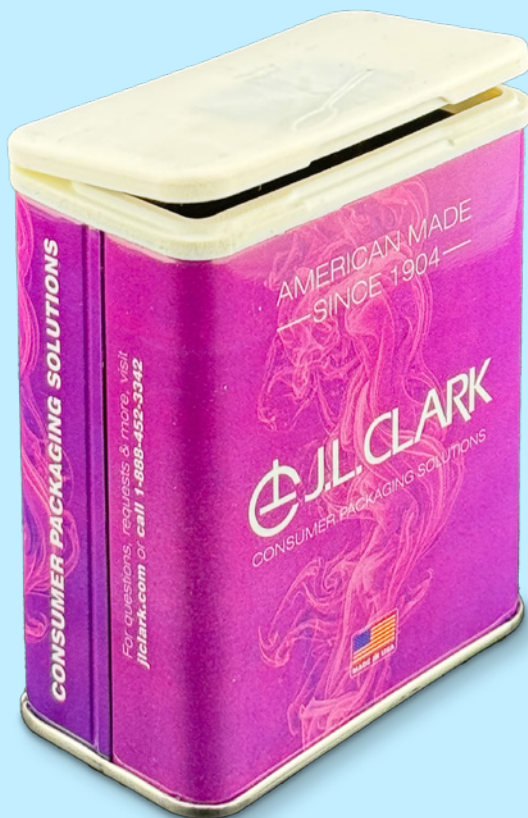
Compared with previous PolyJet materials, PolyJet ToughONE™ provides improved durability for thin walls and snap-fit features while delivering a look and feel that is closer to molded polypropylene. This enables J.L. Clark to validate designs before investing in production tooling, reducing risk while giving customers a more realistic representation of the final product.

Expanding the Value of 3D Printing

While rapid prototyping remains the primary application, J.L. Clark has found additional ways to create value with additive manufacturing.

Beyond product development, the engineering team reverse engineers production equipment components and produces replacement parts in-house, helping reduce downtime while avoiding the delays associated with sourcing replacement components.

As a result, 3D printing has become an everyday engineering resource that supports both product development and manufacturing operations.



The Results

Faster Product Development

By eliminating the need for prototype injection molds, J.L. Clark can deliver customer samples much faster. New concepts move through evaluation earlier, helping shorten development cycles.

Rapid Design Iteration

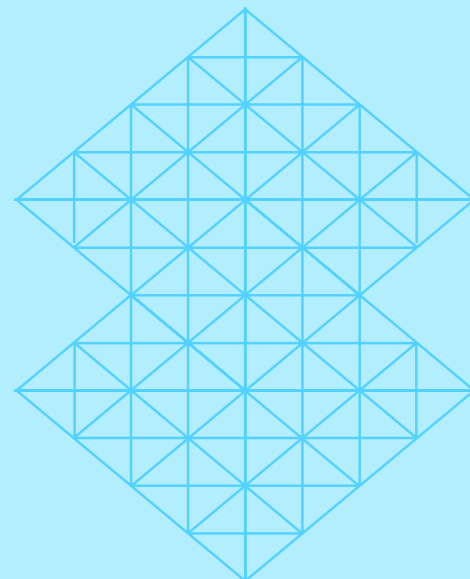
Instead of waiting for new prototype tooling, engineers can quickly refine packaging designs, evaluate multiple concepts, and respond to customer feedback with minimal delay.

More Realistic Customer Samples

Engineers can produce prototypes with thin walls, snap fits, and living hinges that more closely replicate molded polypropylene components while incorporating customer branding and graphics directly onto the model. The result is a highly realistic representation of the finished product that helps both J.L. Clark and its customers make more informed decisions before production begins.

Greater Engineering Agility

Beyond customer prototyping, additive manufacturing has become a valuable engineering tool for reverse engineering production equipment components and producing replacement parts when needed, helping the team respond more quickly to operational challenges.



Looking Ahead

For J.L. Clark, additive manufacturing is more than a faster way to create prototypes. It has become an important part of how the company delivers value to its customers.

With Stratasys PolyJet technology and ToughONE material supporting its engineering team, J.L. Clark can move packaging concepts from idea to functional prototype more quickly, respond faster to customer feedback, and reduce risk before committing to production tooling.

Today, J.L. Clark can move from concept to realistic functional prototype in a fraction of the time required for traditional prototype tooling. That speed allows the company to collaborate more effectively with customers, validate designs with greater confidence, and help leading consumer packaged goods brands bring new packaging to market faster.



stratasys.com

ISO 9001:2015
Certified

Stratasys Headquarters
5995 Opus Parkway,
Minnetonka, MN 55343
+1 800 801 6491 (US Toll Free)
+1 952 937-3000 (Intl)
+1 952 937-0070 (Fax)

1 Holtzman St.
Science Park
Rehovot, 7670401
Israel
+972 74 745 4000
+972 74 745 5000 (Fax)

CASE STUDY POLYJET

©2026 Stratasys. All rights reserved. Stratasys, the Stratasys Signet logo, PolyJet, J850 Digital Anatomy Printer, J5 Digital Anatomy Printer, BoneMatrix, TissueMatrix, GelMatrix, RadioMatrix, and GrabCAD are trademarks or registered trademarks of Stratasys Inc. All other trademarks are the property of their respective owners, and Stratasys assumes no responsibility with regard to the selection, performance, or use of these non-Stratasys products. Product specifications subject to change without notice. CS_PJ_CM_JLClark_0826a