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Formlabs Introduces New 10x Tougher Resin to Close the Gap With Injected Molded Parts

The new material, along with a new, blazing fast post-processing solution, and new software features unlock production 3D printing

Somerville, MA, Mar 24, 2025 – [Formlabs](#), the leader in 3D printing, [today announced](#) two groundbreaking additions to its SLA ecosystem — [a blazing fast curing solution](#) and [a 10x tougher functional resin](#). The new Form Cure post-cures parts in as little as 60 seconds, and the newly formulated Tough 1500 Resin rivals the mechanical properties of injection molded plastics like polypropylene, making it easier than ever to use 3D printing for production use cases.

Tough 1500 Resin Takes Big Step Toward Closing the Toughness Gap With Injection Molding

Last year, Formlabs launched [Form 4](#) and [Form 4L](#), which helped match the speed and cost per part of injection molding, but a significant gap still exists in the toughness and durability of 3D printed parts and injection molded parts.

With the new [Tough 1500 Resin](#), Formlabs is taking a huge step toward closing that toughness gap. Tough 1500 Resin V2 offers 10x higher fracture toughness, 3x higher Gardner impact strength, and an elongation at break of over 150%. With this [improved toughness](#), Tough 1500 Resin V2 now rivals the mechanical properties of polypropylene for durable parts that do not crack, fracture, or shatter, and better maintain material properties over time.

“For 3D printing to compete with injection molding it needs to take a massive step in terms of material properties,” said Formlabs CEO and co-founder Max Lobovsky. “With our new Tough 1500 Resin, we have made a massive step change that brings us significantly closer to having 3D printed parts compete with injection molded parts in terms of toughness and longevity, but with much more design freedom and production flexibility.”

Blazing Fast Post-Curing With Form Cure (2nd Generation)

Parts printed with SLA 3D printing need to be post-cured in order to reach their final properties. Formlabs is accelerating this process with a blazing fast curing solution for their

SLA ecosystem, the new [Form Cure](#), enabling the fastest 3D printing workflows when combined with Form 4 Series 3D printers. The new Form Cure saves 2x-8x the time versus curing with Form Cure (1st Generation). Plus, Form Cure (2nd Generation) heats to 60 °C in just 60 seconds. With Form Cure (2nd Generation), it's possible to cure general purpose resins in just 60 seconds or engineering resins in less than 15 minutes.

This streamlined [post-processing](#) workflow has already helped customers iterate more quickly and dramatically increase throughput.

"Pairing the new Cure with Form 4, we can do so much more with fewer units. The speed that we can do things now changes the way that we are handling projects," said Robert Mackowiak, Associate Rapid Prototyping Engineer at Hasbro.

"We need to cure 600 parts per day," said Matthias Krabel, Managing Director, MAKRA PRO. "If we do this with our old Cure, we need more Cures to cure all those parts, meaning more time for us and more hours we need to pay, so the Cure (2nd Generation) process is better for us — cheaper and more efficient."

New, Powerful Printer Fleet Management Tools for Free With Dashboard

New features in [Dashboard](#), Formlabs' free, online print management software, give users access to powerful tools for streamlining collaboration. These include Group Queues for automated print assignment and Cloud Slicing for faster processing, all in one easy-to-use platform.

New PreForm Features Streamline Workflows

Formlabs also continued updating [PreForm software](#) with user-requested features including:

- Seven language options: English, German, Spanish, French, Italian, Japanese, and Chinese
- Add to a Running Job" for SLS 3D printers, enabling the addition of parts to an in-progress print job for maximum efficiency
- Model grouping to simplify the management of multiple parts
- Bulk Model Import improves organization and efficiency for dental labs, service bureaus, and others handling high volumes of models

About Formlabs

Formlabs builds the tools that make it possible for anyone to bring their ideas to life. Headquartered in Somerville, Mass. with offices across the globe, Formlabs is the professional 3D printer of choice for engineers, designers, healthcare providers, manufacturers, and decision-makers. Formlabs' products include SLA and SLS 3D printers,

post-processing solutions, best-in-class software, and over 45 materials to suit dozens of applications. In 2024, Formlabs was [named](#) one of the world's Most Innovative Companies in Manufacturing by Fast Company. To learn more, visit www.formlabs.com.

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