



PROTOLABS®

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Protolabs Expands 3D Printing Options with Hybrid PhotoSynthesis Technology

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Axtra3D printing capabilities complement digital manufacturer's advanced photopolymer offering with highly precise and repeatable printed parts in days.

MINNEAPOLIS--(BUSINESS WIRE)--Sep. 9, 2024-- Digital manufacturing leader Protolabs expanded its 3D printing capabilities today with the launch of an [advanced photopolymers technology](#). Axtra3D Hybrid PhotoSynthesis (HPS) offers highly repeatable and finely detailed 3D printed parts at accelerated speeds. HPS uses both a precision laser and digital light processing (DLP) system to simultaneously image internal and external part structures—a dual 3D printing approach that overcomes traditional limitations.

HPS complements Protolabs' current Carbon digital light synthesis (DLS) printers for 3D printing projects that require stronger mechanical properties. Both Carbon DLS and HPS feature near-isotropic parts and smooth surface finishes, but HPS technology also offers exceptionally high resolution when compared to other 3D printing processes.

The launch of HPS supports the broader Protolabs strategies to serve more customer needs and continue to expand into production use cases. Common HPS applications include production-grade parts with excellent throughput, parts requiring high-accuracy features for testing and validation, and cosmetic prototypes requiring glass-like surface finishes.

"We are committed to establishing additive manufacturing as a technology that can take companies from prototyping to production," said Ryan Kees, Protolabs 3D printing global product director. "To help product developers, designers, and engineers do that, Hybrid PhotoSynthesis is another vital production option in our growing toolbox of 3D printing capabilities."

Currently available HPS materials include **Tough Black** (Loctite Henkel 3843), an engineering-grade resin with high strength, good impact resistance, and excellent surface finish, and **Ceramic-filled** (BASF 3280), a material often used for tooling and molding due to its high stiffness. Both materials expand Protolabs' advanced photopolymer library, adding to the materials already offered for Carbon DLS.

About Protolabs

Protolabs is the fastest and most comprehensive digital manufacturing service in the world. Our digital factories produce low-volume parts in days while [Protolabs Network](#) unlocks advanced capabilities and volume pricing through its highly vetted manufacturing partners. The result? One manufacturing source—from prototyping to production—for product developers engineers, and supply chain teams across the globe. See what's next at [protolabs.com](#).

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