

BEACON Newsletter - December 2024

Form 4 vs. Form 3/+

Blazing Speed Meets Industrial Production

Discover the productivity, part quality, and benefits of upgrading to Form 4 today.



"Form 4 is our go-to choice for projects needing tight tolerances and engineering-grade materials. It produces high-performance parts with amazingly fast print times and makes it possible for our model makers to produce multiple iterations in a 24-hour period."

Mark Honschke
Additive Prototyping Lead
Microsoft

Improvement

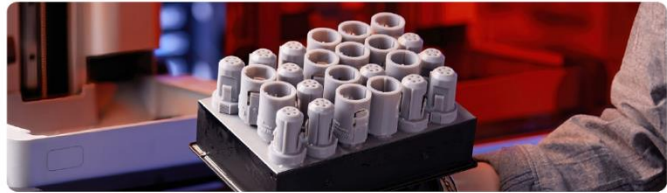
2-5x faster print speeds for most prints in under two hours for faster iterations or more efficient production.

Form 4

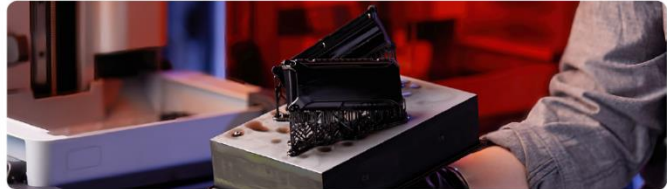
1 h 38 min



1 h 28 min



2 h 49 min



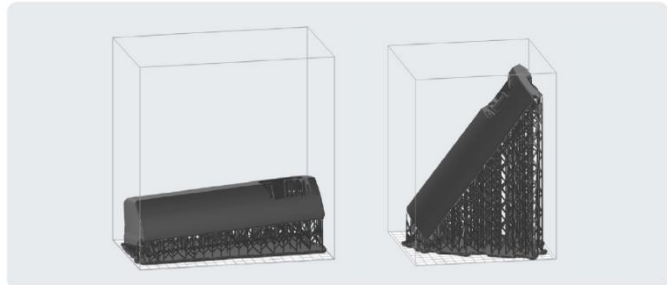
Form 3/+

10 h 47 min

9 h 43 min

10 h 35 min

30% larger build volume and 22% longer parts for increasing productivity.



20.0 × 12.5 × 21.0 cm
7.9 × 4.9 × 8.3 in

14.5 × 14.5 × 19.3 cm
5.7 × 5.7 × 7.6 in

Surface finish that rivals injection molding for improved aesthetics and presentation-ready parts.



Fast Model Resin

Draft Resin

Improvement

6 New Resins provide higher performance, richer color, and crisper features – all at a fraction of the price of the Form 3/+ equivalents.

23+ industry-leading Formlabs materials, or third-party materials using Open Platform, with new materials in development.

Form 4



Clear Resin V5

Form 3/+

Clear Resin V4

Sharpest details to produce parts with the finest and most intricate features.



50 μ m with pre-tuned anti-aliasing for subpixel resolution



85 μ m laser spot size

Improved tank lifetime and management to minimize upkeep costs and waste.



Form 4 Tank

75,000+ layers with any Formlabs material.
Approximately 190 prints using average height model (39 mm tall), any resin, and 100 μ m layer height.

Form 3/+ Tank

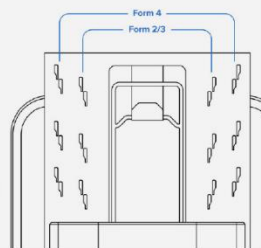
250-800 hours of printing and/or 10-35 weeks exposed to resin, depending on the material.
Approximately 70 prints using Grey Resin V4 and average print time (11 hours) or approximately 20 prints using Tough 2000 Resin and average print time (11 hours).

Post-Processing Improvements

Form Wash (2nd Generation)

3x more agitation

Adjustable forks for Build Platforms, configurable at various heights and widths



Cartridge redesign for hassle-free, efficient, and fast automatic resin dispensing.

- 5-10x faster tank filling
- 63% less waste
- 30% less shelf space



Access images and timelapses online to remotely monitor your prints.



Specs	Form 4	Form 3/+
Technology	Low Force Display™ (LFD)	Low Force Stereolithography™ (LFS)
Key Components of the Print Engine	Backlight Unit Light Processing Unit 4 (LPU 4) Release Texture Flexible Film Resin Tank Intelligent Control Systems High-Speed Automatic Resin Handling	Laser Light Processing Unit (LPU) Flexible Film Resin Tank Intelligent Control Systems Automatic Resin Handling
Maximum Part Length	27.3 cm 10.7 in	22.4 cm 8.8 in
Typical Dimensional Tolerances	1-30 mm features: ±0.15% (lower limit: ±0.02 mm) 31-80 mm features: ±0.2% (lower limit: ±0.06 mm) 81-150 mm features: ±0.3% (lower limit: ±0.15 mm)	Not measured
Average Print Speed	Average: 40 mm/hour across all materials Range: 15-100 mm/hour depending on the material	Average: 11 mm/hour across all materials Range: 4-17 mm/hour depending on the material
Maximum Print Speed	100 mm/hour 3.9 in/hour	31 mm/hour 1.2 in/hour
Printer Weight	18.3 kg 40.4 lb	17.5 kg 38.5 lbs
Printer Dimensions	40.7 × 47.8 × 84.4 cm 16.0 × 18.8 × 33.2 in	40.5 × 53 × 78 cm 15.9 × 20.9 × 30.7 in

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