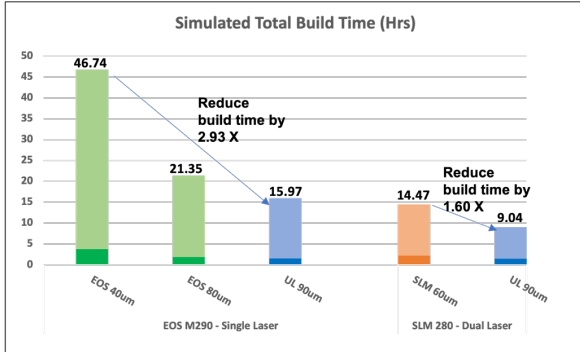


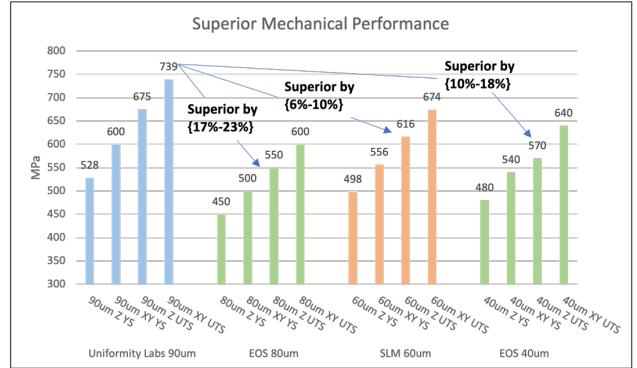
# No Compromise Metal AM

# UniFuse™ 316L 90um Automotive Bracket Use Case

Uniformity Labs UniFuse™ 316L 90um 400W mechanical properties are superior in UTS, YS, Elongation, and density compared to the competitor's lower layer thickness parameter sets. Uniformity Labs UniFuse™ 316L ultra low porosity powder and High Performance Scanning, in this example of production printing, achieve a 2.9X faster build time when compared to the competitor's lower layer thickness scan strategies targeting best-in-class mechanical properties. This throughput improvement is typical for UniFuse™ 316L builds.



**Uniformity Parameters:** Exposure Time (Blue), Recoating Time (Dark Blue)  
**SLM Parameters:** Exposure Time (Orange), Recoating Time (Dark Orange)  
**EOS Parameters:** Exposure Time (Light Green), Recoating Time (Dark Green)



## Vertical Surface Roughness Ra (µm)

EOS 40um	8 – 9 µm
SLM 60um	7 – 17 µm
EOS 80um	9 – 15 µm
Uniformity 90um	9.4 – 13 µm

Elongation	Vertical	Horiz.
EOS 40um	51%	40%
SLM 60um	44%	40%
EOS 80um	45%	35%
Uniformity 90um	49.4%	53.5%

Density	g/cm <sup>3</sup>	%
EOS 40um	≥ 7.97	≥ 99.6
SLM 60um	≥ 7.96	≥ 99.5
EOS 80um	NA	NA
Uniformity 90um	≥ 7.99	≥ 99.9



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All simulations are done with 12 components on the build plate.

- Max capacity
- EOSM290 – 12 parts
- SLM 280 – 15 parts