

DMLS Materials //

Fathom uses EOS and SLM build platforms.

- The build volume for the EOS is 9.85 in. x 9.85 in. x 8.5 in.
- The build volume for the SLM is 11 in. x 11 in. x 13.8 in.

MATERIAL	ALLOY DESIGNATION	LAYERS	HARDNESS	ADVANTAGES	APPLICATIONS
Stainless Steel (PH1)	15-5 PH, DIN 1.4540 & UNS S15500	20 or 40 Micron Layers	30-35 HRC Built, Post Hardened to 40 HRC	High Hardness & Strength	Prototype & Production Parts
Stainless Steel (GP1)	17-4, European 1.4542, German X5CrNiCuNb16-4	20 or 40 Micron Layers	230 ± 20 HV1 Built, Ground & Polished to 250-400 HV1	High Toughness & Ductility	Engineering Applications
Cobalt Chrome (MP1)	ISO 5832-4 & ASTM F75	20, 40 or 50 Micron Layers	35-45 HRC Built	High Temperature Resistance	Turbines & Engine Parts
Maraging Steel (MS1)	18% Ni Maraging 300, European 1.2709, German X3NiCoMoTi 18-9-5	20 or 40 Micron Layers	33-37 HRC Built, Post Hardened to 50-56 HRC	Easily Machinable & Excellent Polishability	Injection Molding, Tooling, Conformal Cooling
Aluminium AISi10Mg	Typical Casting Alloy	30 Micron Layers	Approx 119 ± 5 HBW	Low Weight, Good Thermal Properties	Automotive, Racing
NickelAlloy IN718	UNS N07718, AMS 5662, AMS 5664, W.Nr 2.4668, DIN NiCr19Fe19NbMo3	40 Micron Layers	30 HRC Built, Post Hardened 47 HRC	Heat & Corrosion Resistant	Turbines, Rockets, Aerospace
Stainless Steel (316L)	ASTM F138	20 Micron Layers	85 HRB	Corrosion & Pitting Resistant	Surgical Tools, Food & Chemical Plants
Titanium Ti-64*	ASTM F2924	30 or 60 Micron Layers	320 ± 15 HV5	Lightweight, High Strength, Corrosion Resistance	Aerospace, Motorsport Racing
Titanium Ti-64 ELI*	ASTM F136 Properties	30 or 60 Micron Layers	320 ± 15 HV5	Corrosion Resistance, Biocompatibility	Medical, Biomedical, Implants

*Please contact an Expert@Fathommfg.com for more information