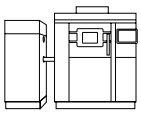
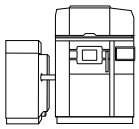
COMPATIBILITY OF
METAL MATERIALS AND SYSTEMS

Product name
Layer thickness

* for EOS M 290 1kW
** all IN718 processes are applicable to IN718 API



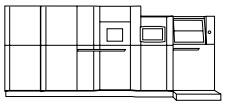
EOS M 290



EOS M 290-2

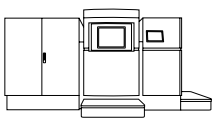
- EOS Aluminium AlF357 — 30 µm
- EOS Aluminium AlSi10Mg — 30 | 60 µm | 80 µm*
- EOS Aluminium Al2139 AM — 60 µm
- EOS Aluminium Al5X1 — 40 µm
- EOS CaseHardeningSteel 20MnCr5 — 40 | 80 µm
- EOS CobaltChrome MP1 — 20 | 40 µm
- EOS Copper CuCP — 40 µm*
- EOS CopperAlloy CuCrZr — 80 µm*
- EOS CopperAlloy CuNi30 — 60 µm
- EOS MaragingSteel MS1 — 20 | 40 | 50 µm
- EOS Nickel NiCP — 80 µm
- EOS NickelAlloy C22 — 40 | 80 µm
- EOS NickelAlloy HAYNES® 282® — 40 | 80 µm
- EOS NickelAlloy HX — 20 | 40 µm
- EOS NickelAlloy IN625 — 20 | 40 | 80 µm
- EOS NickelAlloy IN718** — 20 | 40 | 80 µm
- EOS NickelAlloy IN738 — 40 µm
- EOS NickelAlloy IN939 — 40 µm
- EOS NickelAlloy K500 — 60 µm
- EOS StainlessSteel 17-4PH — 20 | 40 | 80 µm
- EOS StainlessSteel 254 — 40 | 60 µm
- EOS StainlessSteel 316L — 20 | 40 | 80 µm
- EOS StainlessSteel CX — 30 | 40 | 80 µm
- EOS StainlessSteel PH1 — 20 | 40 | 80 µm
- EOS StainlessSteel SuperDuplex — 40 | 80 µm
- EOS Steel 42CrMo4 — 40 | 80 µm
- EOS Titanium Ti64 — 30 | 60 µm
- EOS Titanium Ti64ELI — 30 µm
- EOS Titanium Ti64 Grade 23 — 40 | 80 µm
- EOS Titanium Ti64 Grade 5 — 40 | 80 µm
- EOS Titanium TiCP Grade 2 — 30 µm
- EOS ToolSteel 1.2709 — 40 µm
- EOS ToolSteel CM55 — 40 | 80 µm
- EOS FeNi36 — 40 | 80 µm

* for EOS M 300-4 1kW



EOS M 300-4

- EOS Aluminium AlSi10Mg — 60 | 80 µm*
- EOS CobaltChrome MP1 — 40 µm
- EOS MaragingSteel MS1 — 50 µm
- EOS NickelAlloy IN718 — 40 | 80 µm
- EOS NickelAlloy IN625 — 40 µm
- EOS StainlessSteel 17-4PH — 40 µm
- EOS StainlessSteel 316L — 40 µm
- EOS Titanium Ti64 — 60 µm
- EOS Titanium Ti64 Grade 23 — 40 µm
- EOS Titanium Ti64 Grade 5 — 40 µm



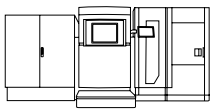
EOS M 400

- EOS Aluminium AlF357 — 60 µm
- EOS Aluminium AlSi10Mg — 90 µm
- EOS CobaltChrome MP1 — 40 µm
- EOS CopperAlloy CuNi30 — 60 µm
- EOS CopperAlloy CuCrZr — 80 µm
- EOS MaragingSteel MS1 — 50 µm
- EOS NickelAlloy IN718 — 40 µm
- EOS StainlessSteel 316L — 40 | 80 µm
- EOS Titanium Ti64 — 30 µm
- EOS Titanium Ti64ELI — 30 µm

Status 10/2025. Information subject to change without notice. EOS is certified according to ISO 9001.
EOS® is registered trademarks of EOS GmbH Electro Optical Systems in some countries. For more information visit www.eos.info/trademarks

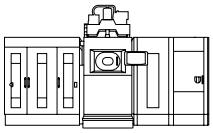
COMPATIBILITY OF
METAL MATERIALS AND SYSTEMS

Product name
Layer thickness



EOS M 400-4

- EOS Aluminium Al2139 AM
  50 µm
- EOS Aluminium AlSi10Mg
  40 | 80 µm
- EOS CaseHardeningSteel 20MnCr5
  40 | 80 µm
- EOS CopperAlloy CuNi30
  60 µm
- EOS MaragingSteel MS1
  40 µm
- EOS Nickel NiCP
  80 µm
- EOS NickelAlloy Haynes® 282®
  40 | 80 µm
- EOS NickelAlloy HX
  40 µm
- EOS NickelAlloy IN718
  40 | 80 µm
- EOS NickelAlloy IN625
  80 µm
- EOS NickelAlloy IN939
  40 µm
- EOS StainlessSteel 17-4PH
  40 | 80 µm
- EOS StainlessSteel CX
  40 | 80 µm
- EOS StainlessSteel 316L
  40 | 80 µm
- EOS StainlessSteel PH1
  20 | 40 | 80 µm
- EOS Titanium Ti64
  60 µm
- EOS Titanium Ti64 Grade 23
  40 | 80 µm
- EOS Titanium Ti64 Grade 5
  40 | 80 µm
- EOS Titanium TiCP Grade 2
  30 µm



EOS M4 ONYX

- EOS NickelAlloy IN718
  40 | 80 µm
- EOS Titanium Ti64
  60 µm

Status 10/2025. Information subject to change without notice. EOS is certified according to ISO 9001.
EOS® is registered trademarks of EOS GmbH Electro Optical Systems in some countries. For more information visit www.eos.info/trademarks

EOS METAL MATERIALS
PORTFOLIO OVERVIEW

DMLS®

Product class	Product name	Chemical Composition Standard	Typical applications
Steels	EOS MaragingSteel MS1	AMS6514, 18Ni300	Series injection molding tools, mechanical engineering parts
	EOS ToolSteel 1.2709	EN 1.2709	Series injection molding tools, mechanical engineering parts
	EOS ToolSteel CM55	Cobalt-free, ultra high-strength steel	Cold working tools, hot working tools, mechanical engineering parts, drive train components
	EOS CaseHardeningSteel 20MnCr5	1.7147	Automotive and general engineering applications, gears, spare parts
	EOS StainlessSteel PH1	1.4540, UNS S15500	Functional prototypes and series production parts, mechanical engineering parts
	EOS StainlessSteel 254	EN 1.4547	Chlorinated seawater handling equipment, pulp and paper manufacturing devices, chemical handling equipment
	EOS StainlessSteel 316L	1.4441, UNS S31673, ASTM F138	Engineering parts for corrosive environments, can be used for medical parts, e.g. endoscopy and orthopedics
	EOS StainlessSteel CX	Precipitation hardening tool steel	Series injection molding tools for corrosive plastic and rubber, mechanical engineering parts
	EOS StainlessSteel 17-4PH	1.4542, UNS 17400, ASTM A564M	Acid and corrosion resistant engiineering parts, medical instruments (surgical tools, orthopedic instrumentation)
	EOS StainlessSteel SuperDuplex	Austenitic-ferritic duplex stainless steel	Oil and gas industry, pulp and paper manufacturing devices, mining and off-shore equipment
	EOS Steel 42CrMo4	ISO 6892-1, ISO 148-1	Engineering components, shafts, gears
Nickel Alloys	EOS Nickel NiCP	ASTM B162, SAE AMS5553	Semiconductor manufacturing parts, chemical industry parts
	EOS NickelAlloy C22	ISO 6892-1, ISO 148-1	Chemical processing components, pharmaceutical and food processing
	EOS NickelAlloy HAYNES® 282®	AMS5951 Rev. A Section 3.1, UNS N07208	Components in the aviation, aerospace, oil and gas industries
	EOS NickelAlloy HX	UNS N06002, AMS 5390	High temperature applications requiring excellent oxidation resistance up to 1 200 °C
	EOS NickelAlloy IN718	UNS N07718, AMS 5662, AMS 5664, 2.4668, NiCr19Fe19NbMo3	Load-bearing components for high temperature applications up to 700 °C, good potential for cryogenic applications
	EOS NickelAlloy IN718 API	API 6ACRA	Piping, tubing, and manifolds for downhole applications, pumping, separation, and injection equipment, fixtures and fasteners
	EOS NickelAlloy IN738	Based on AMS 5410C	Gas turbine components, rocket engine turbo pumps, marine and automotive turbochargers
	EOS NickelAlloy IN625	UNS N06625, AMS 5666, AMS 5599, 2.4856, NiCr22Mo9Nb	Components for service in corrosive environments, good potential for cryogenic applications
	EOS NickelAlloy IN939	Inconel™ 939	Engineering parts requiring excellent mechanical properties (fatigue, creep) and corrosion and oxidation resistance up to 850 °C
	EOS NickelAlloy K500	UNS N05500	Aerospace, marine, industrial applications

* Material in accordance with respective standard

EOS METAL MATERIALS
PORTFOLIO OVERVIEW

DMLS®

Product class	Product name	Chemical Composition Standard	Typical applications
Cobalt Chrome	EOS CobaltChrome MP1	UNS R31537, ISO 5832-4, ASTM F75, ISO 5832-12, ASTM F1537	Medical implants with high wear and corrosion resistance, high temperature components in aerospace
Copper	EOS Copper CuCP	Commercially pure copper	Electrical motors, inductors, variety of industry applications requiring excellent conductivity
	EOS CopperAlloy CuNi30	UNS 96400	Pumps and impellers, marine applications
	EOS CopperAlloy CuCrZr	C18150, CW106C	Rocket engine parts, heat exchangers, induction coils
Titanium	EOS Titanium Ti64 EOS Titanium Ti64 Grade 5	Ti6Al4V, ISO5832-3, ASTM F1472, ASTM F2924, ASTM F3302	Series production parts in aerospace, medical and automotive
	EOS Titanium Ti64ELI EOS Titanium Ti64 Grade 23	Ti6Al4V ELI, ASTM F136, ASTM F3001, ASTM F3302	Series production parts in medical (spinal cages, tibal trays, patella, etc.)
	EOS Titanium TiCP	ASTM F67, ISO 5832-2	Series production parts in medical (e.g. trauma plates, CMF implants, etc.)
Aluminium	EOS Aluminium Al5X1	Aluminum-magnesium alloy designed for AM	Applications in aerospace and automotive industries. Lightweight parts in many industries, including ones requiring high visual quality and anodization, for example consumer electronics.
	EOS Aluminium AlSi10Mg	AlSi10Mg	General engineering components and parts subject to high loads in aerospace and automotive industries, substitution of cast AlSi10Mg parts
	EOS Aluminium AlF357	AlSi7Mg0,6, SAE AMS 4289	Structural components in aerospace and automotive industries requiring balanced mechanical properties
	EOS Aluminium Al2139 AM	Aluminum Association Teal Sheet for Al2139 modified for DMLS	Production parts in aerospace & space, racing, transportation & mobility, lightweight designs
Special Metal Materials	EOS Tungsten W1	Pure tungsten	Thin-walled parts used in guide structures for X-ray imaging, e.g. X-ray grids
	EOS FeNi36	ISO 6892-1	Housings and structures for optical and scientific instruments, aerospace and satellite structures, other applications requiring low thermal expansion

* Material in accordance with respective standard

Detailed information:
https://www.eos.info/en-us/metal-solutions/metal-materials

Status 10/2025. Information subject to change without notice. EOS is certified according to ISO 9001.
EOS® is registered trademarks of EOS GmbH Electro Optical Systems in some countries.
For more information visit www.eos.info/trademarks