PROCESS DATA SHEET

EOS Aluminium Al2139 AM for EOS M 290 | 60 µm

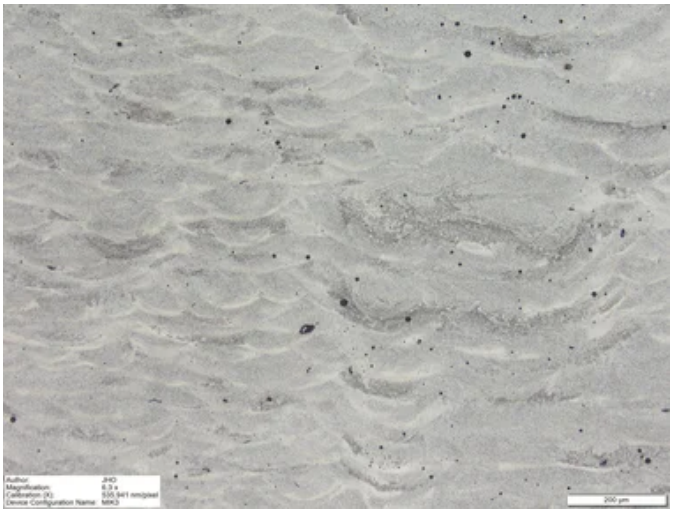
EOS M 290 - 60 µm - TRL 3

System Setup	EOS M 290
EOS Material set	Al2139AM_060_CoreM291_110
Software Requirements	EOSPRINT 2.7 or newer EOSYSTEM 2.11 or newer
Recoater Blade	HSS (High Speed Steel)
Nozzle	EOS Grid Nozzle
Inert gas	Argon
Sieve	75 µm

Additional Information	
Layer Thickness	60 µm
Volume Rate	7.2 mm^3/s
Wall Thickness	0.4 mm

Chemical and Physical Properties of Parts

The chemical properties of the parts are the same as that of the powder.



Microstructure of the Produced Parts

Defects	Thickness	Result	Number of Samples
Average Defect Percentage	60 µm	0.2-0.3 %	-

Density EN ISO 3369	Thickness	Result	Number of Samples
Average Density	60 µm	≥ 2.84 g/cm³	-

Mechanical Properties

Mechanical Properties Heat Treated

EN ISO 6892-1 Room Temperature	Yield Strength [MPa]	Tensile Strength [MPa]	Elongation at Break [%]	Reduction of Area Z [%]	Number of Samples
Vertical	460	520	4	-	-
Horizontal	460	540	6	-	-

English ›

Mechanical Properties

Mechanical Properties As Manufactured

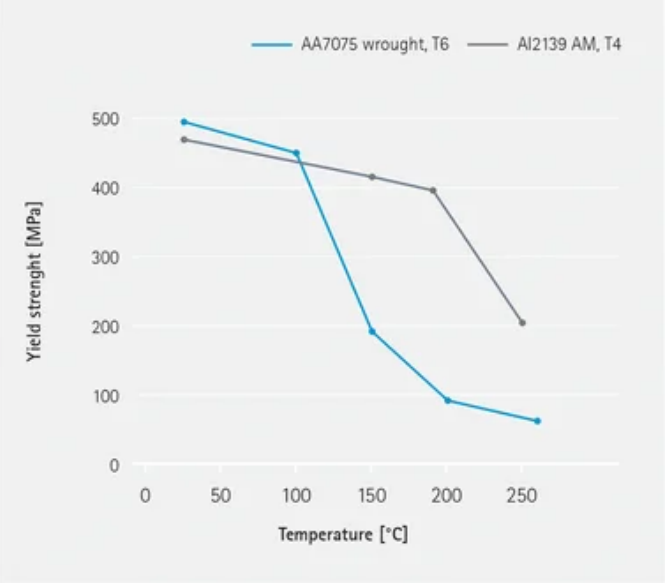
EN ISO 6892-1 Room Temperature	Yield Strength [MPa]	Tensile Strength [MPa]	Elongation at Break [%]	Reduction of Area Z [%]	Number of Samples
Vertical	350	380	6	-	-
Horizontal	350	380	8	-	-

Hardness

Heat Treated	
Value	162
Unit	HBW 2.5/62.5

As Manufactured	
Value	112
Unit	HBW 2.5/62.5

Elevated temperature properties



English

HEADQUARTERS

EOS GmbH
Electro Optical Systems

Robert-Stirling-Ring 1
82152 Krailling / Munich
Germany

Tel.: +49 89 893 36-0
Email: info@eos.info
URL: www.eos.info

This powder has not been developed, tested or certified as a medical device according to Directive 93/42/EEC (MDD) or Regulation (EU) 2017/745 (MDR) and is not intended to be used as a medical device, in particular for the purposes specified in Art. 2 No. 1 MDR. Insofar as you intend to use the powder as raw material for the manufacture of pharmaceutical products or medical devices (e.g. as raw material which as a material must meet the requirements of Annex 1, Chapter II MDR), the responsibility and liability for all analyses, tests, evaluations, procedures, risk assessments, conformity assessments, approval and certification procedures as well as for all other official and regulatory measures required for this purpose shall lie solely with you both with regard to the pharmaceutical product and/or medical device manufactured by you and with regard to the properties, suitability, testing, evaluation, risk assessment, other requirements for use of the powder as raw material. In this respect, the limitations of liability pursuant to our General Terms and Conditions and the system sales or material contracts shall apply.

Part properties are provided for information purposes only and EOS makes no representation or warranty, and disclaims any liability, with respect to actual part properties achieved. Part properties are dependent on a variety of influencing factors and therefore, actual part properties achieved by the user may deviate from the information stated herein. This document does not on its own represent a sufficient basis for any part design, neither does it provide any agreement or guarantee about the specific properties of a material or part or the suitability of a material or a part for a specific application.

The achievement of certain part properties as well as the assessment of the suitability of this material for a specific purpose is the sole responsibility of the user. Any information given herein is subject to change without notice.

Status as of 06.06.2025. Subject to technical modifications. EOS is certified according to ISO 9001.
EOS®, Additive Minds® Alumide®, AMQ®, CarbonMide®, DirectMetal®, DMLS®, EOSAME®, EOSINT®, EOSIZE®, EOSPACE®, EOSPRINT®, EOSTATE®, EOSTYLE®, FORMIGA®, LaserProFusion®, PA 2200®, PrimeCast® and PrimePart® are registered trademarks of EOS GmbH Electro Optical Systems in some countries. For more information visit www.eos.info/trademarks.

English ›