

METAL SOLUTIONS

# EOS Copper CuCP

Material Data Sheet

## EOS COPPER CUCP

Commercially pure copper designed to reach excellent conductivity properties. Suitable for a wide variety of applications.

## MAIN CHARACTERISTICS

- Commercially pure copper (> 99.95 % purity)
- Excellent electrical and heat conductivity

## TYPICAL APPLICATIONS

- Electrical motors
- Inductors
- Variety of industry applications requiring excellent conductivity properties

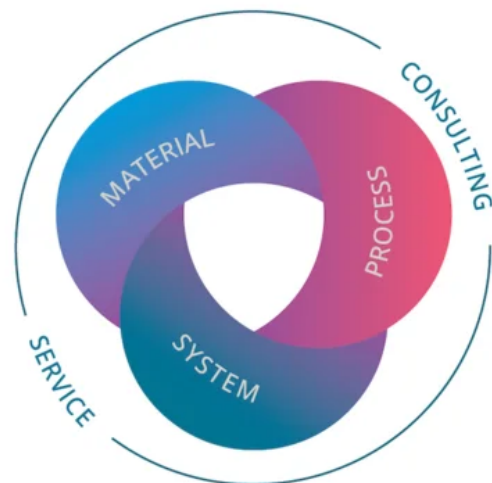
## The EOS Quality Triangle

EOS uses an approach that is unique in the AM industry, taking each of the three central technical elements of the production process into account: the system, the material and the process. The data resulting from each combination is assigned a Technology Readiness Level (TRL) which makes the expected performance and production capability of the solution transparent.

EOS incorporates these TRLs into the following two categories:

- Premium products (TRL 7-9): offer highly validated data, proven capability and reproducible part properties.
- Core products (TRL 3 and 5): enable early customer access to newest technology still under development and are therefore less mature with less data.

All of the data stated in this material data sheet is produced according to EOS Quality Management System and international standards



# POWDER PROPERTIES

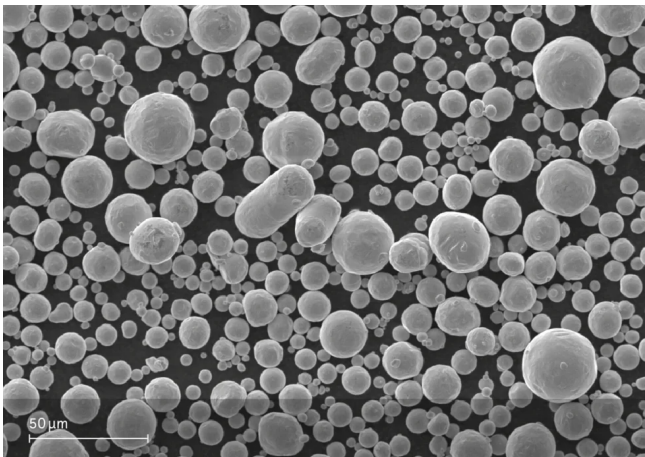
## Powder Chemical Composition (wt.-%)

Element	Min.	Max.
<b>Cu</b>	99.95	-
<b>O</b>	0	0.04

## Powder Particle Size

GENERIC PARTICLE SIZE DISTRIBUTION

15 - 53  $\mu\text{m}$



SEM micrograph of EOS Copper CuCp powder

# HEAT TREATMENT

## Description

Heat treatment of parts built with EOS Copper CuCP is only optional, but can ensure maximum conductivity and uniform structure.

## Steps

Hold 1 h at ~1000 °C, slow cooling. Treatment done in heavy argon flow or in vacuum furnace

## HEADQUARTERS

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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.

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**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.**

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Status as of 07.04.2026. Subject to technical modifications. EOS is certified according to ISO 9001.

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