

CL 80CU Copper alloy

Bronze (powder)

With an appropriate approval* CL 80CU is a material whose melting properties make it outstandingly suited to additive manufacturing.

29

Cu

63,54

CHEMICAL COMPOSITION

Component	Indicative value (%)
Cu	90
Sn	10

AREAS OF APPLICATION

With an appropriate approval* CL 80CU can be used for production of original or master models in the fields of jewellery and artistically crafted sculptures. The material is very easy to polish and has a higher hardness than silver alloys.

TECHNICAL DATA

Yield Point R_e^1	approx. 400 N/mm ²
Tensile Strength R_m^1	approx. 500 N/mm ²
Elongation A ¹	approx. 5 %
Young's modulus ¹	approx. 120 · 10 N/mm ²
Hardness HV 0.2	171 ± 7

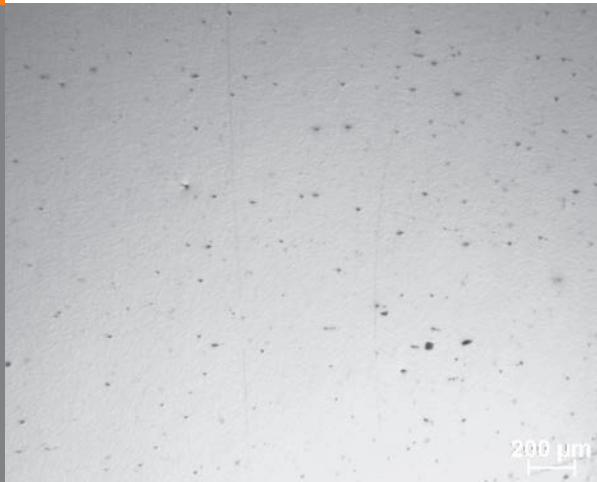
¹ Tensile test in accordance with DIN EN 10002 at room temperature.

CL 80CU

Bronze

MICROSCOPIC IMAGES

Microsection of a test piece
(x 100 magnification)



Microscopic image of a polished ring
(x 20 magnification)



REWORKING

Before polishing, it is recommended if necessary that the surface be compacted by means of shot peening.

MICROSTRUCTURE

Components made from the bronze alloy CL 80CU display, after being built up with the metal laser melting method LaserCUSING®, a homogeneous, dense structure.

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All of the specified figures are approximate figures. The figures which are provided reflect the current level of our knowledge and are dependent on process and machine parameters. The information provided on this material data sheet is therefore not binding and is not deemed to be certified.

* The approval is branch-specific and/or application-specific and it must be, therefore, carried out by the consumer/user. Approval of materials by Concept Laser GmbH is not available.