

Bronze CuSn10



Metal Alloys

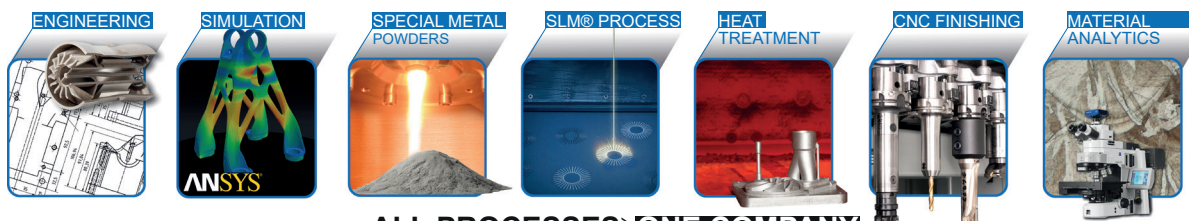
for Additive Manufacturing

ALTERNATIVE NAMES:

CC480K

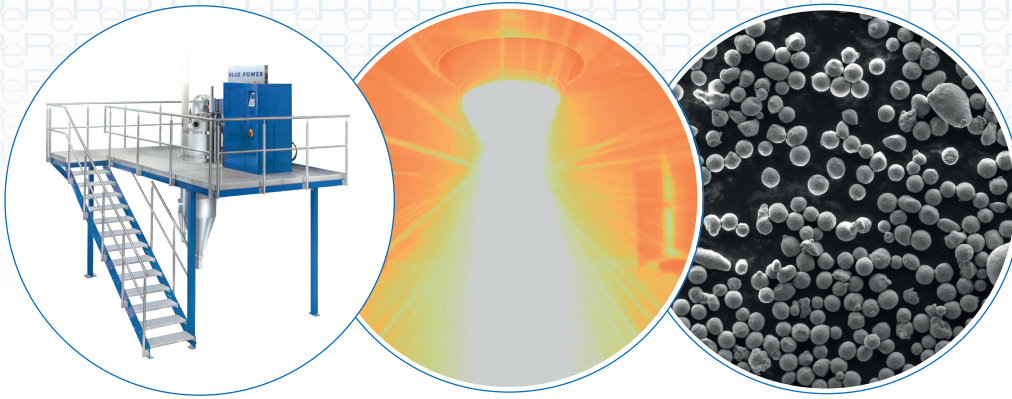
Properties	Unit	As built ¹⁾
Tensile Strength R_m	MPa	510 ±20
Yield Strength $R_{p0,2}$	MPa	385 ±15
Elongation at Break A_5	%	22 ±5
Young's Modulus E	GPa	110 ±10
Hardness	HV	160 ±5

Rosswag Engineering offers a holistic and fully integrated process chain for Additive Manufacturing services. Our portfolio ranges from manufacturing of your prototypes, tools and small serial products to an individual consulting and engineering process for the choice of material, parameters and process chain.



ALL PROCESSES IN ONE COMPANY





Material characteristics

The copper-tin alloy bronze is a construction material with medium hardness and high ductility. CuSn10 is characterised by good wear resistance and corrosion resistance, especially against atmospheric influences, as a firmly adhering and dense protective layer is formed on the surface. Bronze is used as a construction material for pump housings and impellers or water turbines due to these tribological and corrosive resistances. Other fields of application include valve housings, guide wheels and impellers as well as general mechanical engineering.

CHEMICAL COMPOSITION

Element	Mass Fraction [%]
Cu	Balance
Sn	9.0 - 10.0

MICROSECTION



2500 µm

- 1) The specified material properties were determined at room temperature. They are multi-dimensionally dependent on many different machine and process parameters. Without further investigation, the material properties do not constitute a sufficient basis for component dimensioning.