Copper Alloy. CuNi2SiCr

Properties

CuNi2SiCr is a thermal curable copper alloy.

Typical of CuNi2SiCr is the favourable combination of electrical and thermal conductivity accompanied by high stiffness, even at elevated temperatures. Our 3D printed copper alloy gives you a high corrosion resistance and is very well suited for wear and sliding applications. CuNi2SiCr also meets the requirements of a conductive contact material in electrical engineering or for electrodes in welding.

CuNi2SiCr is a candidate for tooling due to it's hardness and its high level of wear resistance. In addition CuNi2SiCr-alloy is very well suited for highly thermally stressed construction elements and for the use of a beryllium-free copper alloy.

Application

- Cooling inserts for tools
- Electromechanical components
- Mould inserts and cores for plastic and die castings
- Valves
- Brackets and fixing elements facing high stresses

Chemical Composition:

Cu	Ni	Si	Cr
Base	1.8 - 3%	0.4 - 0.7%	0.1 - 0.8%

Mechanical Properties:

Material Property	Unit	As Built	Heat Treated
Tensile Strength	MPa	251 ± 10	595 ± 10
Yield Point (Rp 0.2%)	MPa	192 ± 40	508 ± 20
Elongation at Break	%	34 ± 5	15 ± 5
E-Modulus	GPa	89 ± 5	97 ± 5

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