

# COPPER ALLOY

## JM 2

CuSn10-C



### Composition

Element	Cu <sup>1</sup>	Ni	P	Pb	Sn	Al	Fe	Mn	S	Sb	Si	Zn
w/w	%	%	%	%	%	%	%	%	%	%	%	%
min.	88,0				9,0							
max.	90,0	2,0	0,2	1,0	11,0	0,01	0,2	0,1	0,05	0,2	0,02	0,5

<sup>1</sup> Including Ni

### Mechanical properties

Casting process and designation	Proof Strength $R_{p0,2}$ [MPa]	Tensile strength $R_m$ [MPa]	Elongation $A_5$ [%]	Brinell hardness HBW [HB]
-03 (sand)	≥120	≥240	≥12	≥70
-15 (continuous)	≥130	≥270	≥10	≥80
-15 (centrifugal)	≥130	≥270	≥10	≥80

### Physical properties

Density [g/cm <sup>3</sup> ]	Young's modulus [GPa]	Thermal conductivity [W/mK]	Electrical conductivity [%IACS]
8,8	100	71	9,6

### Fabrication properties

Machinability	Weldability	Solderability	Stress-relieving temperature
Very good	Not recommended	Excellent	260 °C

### Applications

Worm wheels and gears; bearings expected to carry heavy loads at relatively low speeds

### Comparable standards

Swedish standard	SS-EN 1982	CC480K
European standard	EN 1982	CC480K
US standard	UNS	C90700
British standard (old)	BS	1400 CT1
German standard (old)	DIN	1705 CuSn10