

COPPER ALLOY

JM 12

CuSn10Zn2-C



Composition

Element	Cu ¹	Ni	Pb	Sn	Zn	Al	Fe	Mn	P	S	Sb	Si
w/w	%	%	%	%	%	%	%	%	%	%	%	%
min.	86,0			9,0	1,0							
max.	89,0	1,0	1,5	11,0	3,0	0,01	0,25	0,2	0,05	0,10	0,3	0,01

¹ 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)	≥140	≥260	≥7	≥80
-15 (centrifugal)	≥140	≥260	≥7	≥80

Physical properties

Density [g/cm ³]	Young's modulus [GPa]	Thermal conductivity [W/mK]	Electrical conductivity [%IACS]
8,7	100	74	11

Fabrication properties

Machinability	Weldability	Solderability	Stress-relieving temperature
Very good	Good	Excellent	260 °C

Applications

Bearings, bushings, pump impellers, piston rings, pump bodies, valve components, steam fittings, gears

Comparable standards

Swedish standard	SS-EN 1982	CC482K
European standard	EN 1982	CC482K
US standard	UNS	C90500
British standard (old)	BS	1400 G1
German standard (old)	DIN	1705 CuSn10Zn2