COPPER ALLOY
JM 5
CuSn10Pb10-C

Composition

Element	Cu[1]	Ni	P	Pb	Sn	Zn	Al	Fe	Mn	S	Sb	Si
w/w	%	%	%	%	%	%	%	%	%	%	%	%
min.	78,0			8,0	9,0							
max.	82,0	2,0	0,1	11,0	11,0	2,0	0,01	0,25	0,2	0,1	0,5	0,01

[1] Including Ni

Mechanical properties

Casting process and designation	Proof Strength $Rp_{0,2}$ [MPa]	Tensile strength R*m* [MPa]	Elongation A_5 [%]	Brinell hardness HBW [HB]
-03 (sand)	≥80	≥180	≥7	≥60
-15 (continuous)	≥110	≥220	≥6	≥70
-15 (centrifugal)	≥110	≥220	≥6	≥70

Physical properties

Density [g/cm^3]	Young's modulus [GPa]	Thermal conductivity [W/mK]	Electrical conductivity [%IACS]
8,9	80	47	10

Fabrication properties

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

Applications

Bearings for high speed and heavy pressure, pumps, impellers, applications requiring corrosion resistance, pressure-tight castings

Comparable standards

Swedish standard	SS-EN 1982	CC495K
European standard	EN 1982	CC495K
US standard	UNS	C93700
British standard (old)	BS	1400 LB2
German standard (old)	DIN	1716 CuPb10Sn