

COPPER ALLOY

JM 7

CuAl10Fe5Ni5-C



Composition

Element	Al	Cu	Fe	Mn	Ni	Mg	Pb	Si	Sn	Zn
w/w	%	%	%	%	%	%	%	%	%	%
min.	8,5	76,0	3,5		4,0					
max.	10,5	83,0	5,5	2,5	6,0	0,05	0,05	0,1	0,2	0,5

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)	≥250	≥540	≥10	≥140
-15 (continuous)	≥260	≥590	≥10	≥150
-15 (centrifugal)	≥260	≥590	≥10	≥150

Physical properties

Density [g/cm ³]	Young's modulus [GPa]	Thermal conductivity [W/mK]	Electrical conductivity [%IACS]
7,6	110	42	8,5

Fabrication properties

Machinability	Weldability	Solderability	Stress-relieving temperature
Good	Excellent	Good	315 °C

Applications

Marine applications, machine parts, worm wheels, valve guides and seats in aircraft engines, corrosion-resistant parts, bushings, gears, worms, pickling hooks and baskets, agitators

Comparable standards

Swedish standard	SS-EN 1982	CC333G
European standard	EN 1982	CC333G
US standard	UNS	C95500
British standard (old)	BS	1400 AB2
German standard (old)	SIN	1714 CuAl10Ni