

COPPER ALLOY

JM 15

CuZn35Mn2Al1Fe1-C



Composition

Element	Al	Cu ¹	Fe	Mn	Ni	Zn	Pb	Si	Sn
w/w	%	%	%	%	%	%	%	%	%
min.	1,0	58,0	0,5	1,0	0,5	Rem.			
max.	2,0	61,0	1,5	2,0	1,5	Rem.	0,5	0,1	1,0

¹ Including Ni

Mechanical properties

Casting process and designation	Proof Strength <i>R_{p0,2}</i> [MPa]	Tensile strength <i>R_m</i> [MPa]	Elongation <i>A₅</i> [%]	Brinell hardness HBW [HB]
-03 (sand)	≥150	≥440	≥10	≥110
-15 (continuous)	≥200	≥490	≥10	≥120
-15 (centrifugal)	≥200	≥490	≥10	≥120

Physical properties

Density [g/cm ³]	Young's modulus [GPa]	Thermal conductivity [W/mK]	Electrical conductivity [%IACS]
8,3	105	87	20,5

Fabrication properties

Machinability	Weldability	Solderability	Stress-relieving temperature
Very good	Poor	Fair	260 °C

Applications

Compressors, forming dies for wood pulp industry, frames, gears, hooks, lever arms, machinery, machinery parts (substituted for steel and malleable iron), machinery parts requiring high strength, pressing dies for wood pulp, struts, wear rings for pressing dies for wood pulp industry, boat parts, clamps, covers for marine hardware, propellers for salt and fresh water, rudders

Comparable standards

Swedish standard	SS-EN 1982	CC765S
European standard	EN 1982	CC765S
US standard	UNS	C86500
British standard (old)	BS	1400 HTB1
German standard (old)	SIN	1705 CuZn35Al1