COPPER ALLOY
JM 18

CuZn25Al5Mn4Fe3-C

Composition

Element	Al	Cu[1]	Fe	Mn	Ni	Zn	Pb	Si	Sn
w/w	%	%	%	%	%	%	%	%	%
min.	3,0	60,0	1,5	2,5		Rem.			
max.	7,0	67,0	4,0	5,0	3,0	Rem.	0,1	0,1	0,2

[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)	≥450	≥750	≥8	≥180
-15 (continuous)	≥480	≥750	≥5	≥190
-15 (centrifugal)	≥480	≥750	≥5	≥190

Physical properties

Density [g/cm^3]	Young's modulus [GPa]	Thermal conductivity [W/mK]	Electrical conductivity [%IACS]
8,2	105	36	9

Fabrication properties

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

Applications

Extra-heavy duty, high-strength alloy for gears, cams, bearings, bushings, screw-down nuts, bridge parts, hydraulic cylinder parts

Comparable standards

Swedish standard	SS-EN 1982	CC762S
European standard	EN 1982	CC762S
US standard	UNS	C86300
British standard (old)	BS	1400 HTB3
German standard (old)	SIN	1705 CuZn25Al5