



Complete Competence in Copper

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IACS : International Annealed Copper Standard
 RWMA : Resistance Welder Manufacturing Alliance (USA)
 UNS : Unified Numbering System

Typical Physical And Mechanical Properties Of Mipalloy Materials

MIPALLOY GRADE	TYPICAL ALLOY COMPOSITION	CONDITION	UNS	RWMA	HARDNESS ROCKWELL	ELECTRICAL CONDUCTIVITY I.A.C.S	TENSILE STRENGTH Mpa	ELONGATION % IN 2"	ANNEALING TEMPERATURE °C	DENSITY GMS/CC
MipalloyC	Copper Cu 99.99%	Cast Wrought	C11000		20 B 30 B	100 % min	207 241	15 30	375	8.91
MipalloyOF	Oxygen Free Copper, Electronic grade, Cu 99.99%, Oxygen Less than 5ppm		C10100		20 B 59 B	101 % min	207 350	12 20	375	8.94
MipalloyAC	Silver Copper Ag 0.08-0.12%, P 0.001-0.007%, Rest -Cu	Cold Rolled	C10700		45 B 60 B	95 % min	276	15 20	475 750	8.96
MipalloyZ	Zirconium Copper Zr 0.10-0.20%, Rest- Cu	Cast Wrought	C15000	Group A Class 1	64 B 80 B	80 % min	345 380	8 20	450	8.96
Mipalloy3	Chromium Copper Cr 0.6-1.2%, Fe 0.10%, Pb 0.05%, Si 0.10%, Rest- Cu		C18200	Group A Class 2	70 B 83 B	75 % min	345 517	15 20	500 500	8.96
Mipalloy3ZR	Chromium Zirconium Copper Cr 0.50-1.5%, Zr 0.05-.25%, Rest- Cu		C18150	Group A Class 2	70 B 83 B	75 % min	348 517	15 20	525 525	8.96
Mipalloy100	0.55% Beryllium Copper Be 0.2-0.6%, Al 0.20%, Co 0.3%, Fe 0.10%, Ni 1.4-2.2%, Si 0.2%, Rest- Cu		C17510	Group A Class 3	95 B 105 B	45 % min	655 758	6 10	550 550	8.96
Mipalloy100	Nickel Silicon Chromium Copper Ni 1.8-3%, Cr 0.1-0.8%, Fe 0.15%, Si 0.4-0.8%, Rest- Cu		C18000	Group A Class 3	90 B 100 B	45 % min	655 758	6 10	550 550	8.96
Mipalloy4	2% Beryllium Copper Be 1.8-2%, Al 0.2%, Co 0.2%, Si 0.2%, Rest- Cu		C17200	Group A Class 4	36 C 44 C	17 % min	758 1172	2 4	375 375	8.3
MipalloyM56WC	Tungsten 56% Copper 44%		Sintered		Group B Class 10	72 B min	50 % min			
MipalloyM60WC	Tungsten 60% Copper 40%			Group B Class 10	80 B min	45 % min				12.8
MipalloyM70WC	Tungsten 70% Copper 30%			Group B Class 10	88 B min	40 % min				14.18
MipalloyM75WC	Tungsten 75% Copper 25%			Group B Class 11	93 B min	38 % min				14.80
MipalloyM80WC	Tungsten 80% Copper 20%			Group B Class 12	97 B min	35 % min				15.60
MipalloyM100W	Tungsten 100%			Group B Class 13	69 A min	31 % min				19.28
MipalloyM100M	Molybdenum			Group B Class 14	89 B min	30 % min				10.2
MipalloyDSC	Dispersion Strengthened Copper			Group C Class 20	75 B min	80 % min				8.65