



mipalloy®



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 STENGTH Mpa	ELONGATION % IN 2"	ANNEALING TEMPERATURE °C	DENSITY GMS/CC
Mipalloy C	Copper	Cast Wrought	C11000			100 % min	207 241	15 30	180 180	8.96
Mipalloy AC	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	300	8.96
Mipalloy Z	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
Mipalloy 3	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	20 15	500 500	8.96
Mipalloy 3ZR	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	20 15	525 525	8.96
Mipalloy 100	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
Mipalloy 100	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
Mipalloy 4	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
Mipalloy M56WC	Tungsten 56% Copper 44%		Sintered		Group B Class 10	72 B 82 B	55 % 60 %			
Mipalloy M60WC	Tungsten 60% Copper 40%			Group B Class 10	80 B 92 B	38 % 45 %				12.8
Mipalloy M70WC	Tungsten 70% Copper 30%			Group B Class 10	88 B 95 B	47 % 52 %				14.18
Mipalloy M75WC	Tungsten 75% Copper 25%			Group B Class 11	93 B 99 B	42 % 50 %				14.80
Mipalloy M80WC	Tungsten 80% Copper 20%			Group B Class 12	97 B 104 B	41 % 49 %				15.60
Mipalloy M100W	Tungsten 100%			Group B Class 13	69 A	31 %				19.28
Mipalloy M100M	Molybdenum			Group B Class 14	89 B	30 %				10.2
Mipalloy DSC	Dispersion Strengthened Copper			Group C Class 20	75 B 78 B	80 %				8.65