

TYPICAL PHYSICAL AND MECHANICAL PROPERTIES

Alloy Name	Chemical Composition Percentage (%)		Density (g/cm3)	Rockwell Hardness	Conductivity I.A.C.S. (%)	Tensile Strength Mpa	UNS/RWMA	Application And Typical Uses
WADSON C100	Copper	99.90	8.9	82-90 F	99	221-455	C11000	Bus Bars, connecting plates, Flexible links in the form of foils, braided wires etc.
WADSON ACX	Chromium (Cr) Copper (Cu)	0.8 Bal	8.9	70-78 B	76-80	450	C18200 Class 2	Spot and seam welding cold and hot rolled steels, current carrying shafts and arms, backup bars.
WADSON AZX	Chromium (Cr) Zirconium(Zr) Copper (Cu)	0.6 - 1.2 .03- 0.1 Balance	8.9	72-80 B	78-80	400	C18150 Class 2	Spot and seam welding cold and hot rolled steels and coated materials. Resistance welding tips and discs for high production rates. Moulds for continuous casting of steel or aluminium.
WADSON ZX	Zirconium(Zr) Copper (Cu)	0.1-0.3 Balance	8.9	72-80 B	78-80	400	C15000 Class 1	Spot and seam welding coated steels.
WADSON BNX	Beryllium (Be) Nickel (Ni) Copper (Cu)	0.3-0.5 1.2-1.6 Balance	8.9	90-98 B	45-48	680	C17510 Class 3	Spot and seam welding stainless steel, Monel and nickel alloy, flash welding dies, plunger tips and electrode holders.
WADSON BX2	Beryllium Cobalt Copper	1.8-2.1 0.3-0.6 Balance	8.7	35-40 C	22	1140	C17200 Class 4	Flash Butt welding dies, Parts for electrical components. Cooling pins and neck rings or bottom plates for blow moulds of plastics.
WADSON 10WC	Tungsten (W) Copper (Cu)	75 25	14.80	98 B	45	90 Lsi	74400 Class 11	Flash Butt welding dies, cooling pins & neck rings or bottom plates for blow moulds of plastics.
WADSON 30WC	Tungsten (W) Copper (Cu)	80 20	15.60	103 B	41	98 Lsi	74400 Class 11	Die inserts on most flash butt welding dies. Production of light electrical upsetting, electro forming dies, and seam welder bushing inserts.
WADSON W100	Tungsten (W)	100	19.28	39 C	31	150 Lsi	74300 Class 13	Electrode and die inserts where welding pressure are relatively high.
WADSON M100	Molybdenum	100	10.20	89 B	30	80 Lsi	42300 Class 14	To weld nonferrous materials & also used for electro brazing electrode material and for some electrical upsetting operations.