

## HIGH TEMPERATURE / CORROSION RESISTANT ALLOYS

### TUNGSTEN COPPER ALLOYS

Main applications: For the spark erosion of dies of cemented carbide and for making high speed steel and switches and contacts in high and low voltage electrical devices

Main Sizes:

Rods: Dia(10-60)mm x (150-250)mm

Spare bars: (12 x 12)mm – (45 x 45)mm x 350mm

#### CHEMICAL COMPOSITION CuW (50)

COPPER (CU)	50 + 2.0
IMPURITY	0.5
TUNGSTEN (W)	BALANCE

#### CHEMICAL COMPOSITION CuW (55)

COPPER (CU)	45 + 2.0
IMPURITY	0.5
TUNGSTEN (W)	BALANCE

#### CHEMICAL COMPOSITION CuW (60)

COPPER (CU)	40 + 2.0
IMPURITY	0.5
TUNGSTEN (W)	BALANCE

**CHEMICAL COMPOSITION CuW (65)**

COPPER (CU)	35 + 2.0
IMPURITY	0.5
TUNGSTEN (W)	BALANCE

**CHEMICAL COMPOSITION CuW (70)**

COPPER (CU)	30 + 2.0
IMPURITY	0.5
TUNGSTEN (W)	BALANCE

**CHEMICAL COMPOSITION CuW (75)**

COPPER (CU)	25 + 2.0
IMPURITY	0.5
TUNGSTEN (W)	BALANCE

**CHEMICAL COMPOSITION CuW (80)**

COPPER (CU)	20 + 2.0
IMPURITY	0.5
TUNGSTEN (W)	BALANCE

**CHEMICAL COMPOSITION CuW (85)**

COPPER (CU)	15 + 2.0
IMPURITY	0.5
TUNGSTEN (W)	BALANCE

**CHEMICAL COMPOSITION CuW (90)**

COPPER (CU)	10 + 2.0
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IMPURITY	0.5
TUNGSTEN (W)	BALANCE

**MECHANICAL PROPERTIES CuW (50)**

DENSITY (G/CM <sup>3</sup> )	11.85
HARDNESS HB	115
RES (μΩcm)	3.2
CONDUCTIVITY IACS/ %	54
TRS / Mpa	

**MECHANICAL PROPERTIES CuW (55)**

DENSITY (G/CM <sup>3</sup> )	12.30
HARDNESS HB	125
RES (μΩcm)	3.5
CONDUCTIVITY IACS/ %	49
TRS / Mpa	

**MECHANICAL PROPERTIES CuW (60)**

DENSITY (G/CM <sup>3</sup> )	12.75
HARDNESS HB	140
RES (μΩcm)	3.7
CONDUCTIVITY IACS/ %	47
TRS / Mpa	

**MECHANICAL PROPERTIES CuW (65)**

DENSITY (G/CM <sup>3</sup> )	13.30
HARDNESS HB	155
RES (μΩcm)	3.9
CONDUCTIVITY IACS/ %	44
TRS / Mpa	

**MECHANICAL PROPERTIES CuW (70)**

DENSITY (G/CM <sup>3</sup> )	13.80
HARDNESS HB	175
RES (μΩcm)	4.1
CONDUCTIVITY IACS/ %	42
TRS / Mpa	790

**MECHANICAL PROPERTIES CuW (75)**

DENSITY (G/CM <sup>3</sup> )	14.50
HARDNESS HB	195
RES (μΩcm)	4.5
CONDUCTIVITY IACS/ %	38
TRS / Mpa	885

**MECHANICAL PROPERTIES CuW (80)**

DENSITY (G/CM <sup>3</sup> )	15.15
HARDNESS HB	220
RES (μΩcm)	5.0
CONDUCTIVITY IACS/ %	34
TRS / Mpa	980

**MECHANICAL PROPERTIES CuW (85)**

DENSITY (G/CM <sup>3</sup> )	15.90
HARDNESS HB	240
RES (μΩcm)	5.7

CONDUCTIVITY IACS/ %	30
TRS / Mpa	1080

**MECHANICAL PROPERTIES CuW (90)**

DENSITY (G/CM <sup>3</sup> )	16.75
HARDNESS HB	260
RES ( $\mu\Omega\text{cm}$ )	6.5
CONDUCTIVITY IACS/ %	27
TRS / Mpa	1160