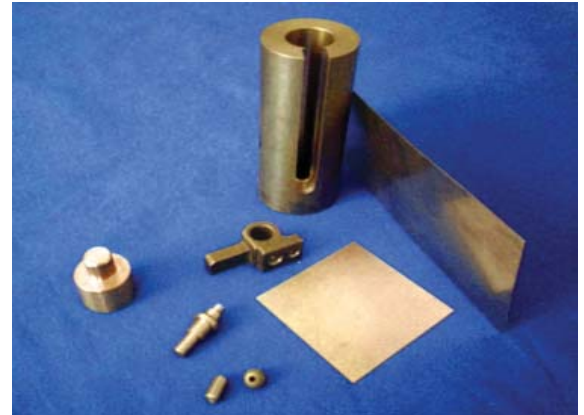


***The best choice for extreme applications...***

Midwest Tungsten Service tungsten copper alloys are the perfect choice where high density, high thermal conductivity, or low thermal expansion are important. Electrical contacts, heat sinks, and resistance welding electrodes are all applications where MTS tungsten copper alloys can do the job. Check the options and properties below to determine which of our alloys is best suited to your needs. Most sizes and shapes can be supplied with short lead times. We can also manufacture parts from these materials to your specifications.



**Advantages:**

- High arc resistance combined with good electrical conductivity
- High thermal conductivity
- Low thermal expansion

**Applications:**

- Arc contacts and vacuum contacts in high/medium voltage breakers or vacuum interruptors
- Electrodes in electric spark erosion (EDM) cutting machines
- Heat sinks for passive cooling of electronic devices
- Electrodes for resistance welding

Class	Chemical Composition (% by wt.)			Density	Conductivity	Resistivity	Hardness	Bend Strength
	Copper	Max. Additives	Tungsten	gr/cc Min.	IACS % Min.	$\mu\Omega$ *cm Max.	HB Kgf/mm <sup>2</sup> Min.	MPa Min.
W50/Cu50	50± 2.0	0.5	balance	11.85	54	3.2	115	-
W55/Cu45	45± 2.0	0.5	balance	12.30	49	3.5	125	-
W60/Cu40	40 ± 2.0	0.5	balance	12.75	47	3.7	140	-
W65/Cu35	35 ± 2.0	0.5	balance	13.30	44	3.9	155	-
W70/Cu30	30 ± 2.0	0.5	balance	13.80	42	4.1	175	667
W75/Cu25	25 ± 2.0	0.5	balance	14.50	38	4.5	195	706
W80/Cu20	20 ± 2.0	0.5	balance	15.15	34	5.0	220	736
W85/Cu15	15 ± 2.0	0.5	balance	15.90	30	5.7	240	765
W90/Cu10	10 ± 2.0	0.5	balance	16.75	27	6.5	260	804