



Copper Tungsten

Applications for Copper Tungsten

Resistance Welding
 Heat Sinks
 Electrical Discharge Machining
 Electro-chemical machining
 Electrical Contacts

Copper Tungsten Class 10 (1W, 3W, 5W)

Class 10 material is recommended as facings or inserts for projection welding electrodes and flash and butt welding dies where high electrical conductivity is desirable and a degree of malleability is necessary.

Copper Tungsten Class 11 (10W)

Class 11 (a harder material than Class 10) is recommended as facing inserts for flash and butt welding dies and general purpose projection welding electrodes. It may also be used as seam welder bearing inserts and facing for electro-forming or electro-forging, such as stainless steel.

Copper Tungsten Class 12 (30W)

Class 12 material is specifically recommended for heavy duty projection welding electrodes and for die facings in electro-forming and electro-forging applications. It is suitable as die material for electrical upsetting of rivets and studs.

CHEMICAL & PHYSICAL COMPOSITION

RWMA CLASS	RWMA NUMBER	DESCRIPTION	HARDNESS ROCKWELL	CONDUCTIVITY % I.A.C.S.	TUNGSTEN	COPPER
10	1W	COPPER TUNGSTEN	72-82 B	55-60	56	44
10	3W	COPPER TUNGSTEN	85-92 B	48-53	68	32
10	5W	COPPER TUNGSTEN	88-95 B	47-52	70	30
11	10W	COPPER TUNGSTEN	96-99 B	42-50	75	25
12	30W	COPPER TUNGSTE	99-104 B	41-49	80	20