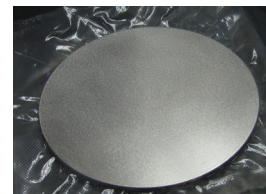


Sputtering Targets

- ✚ Purity up to 99.999+%
- ✚ Target sizes from 1" dia. to 8" dia.
- ✚ Thickness from 1/8" to 1/4"
- ✚ Custom sizes/shapes available
- ✚ High quality at lower prices
- ✚ OFHC copper backing plates
- ✚ Target bonding (solder, epoxy, diffusion)
- ✚ Analysis provided



Titanium Target (99.99%)
8" dia x 5mm thick
Bonded to Cu Backing Plate



Aluminum, Al
Antimony, Sb
Barium, Ba
Bismuth, Bi
Boron, B
Cadmium, Cd
Carbon Graphite, C
Cerium, Ce
Chromium, Cr
Cobalt, Co
Copper, Cu
Dysprosium, Dy
Erbium, Er
Europium, Eu
Gadolinium, Gd
Germanium, Ge
Gold, Au
Hafnium, Hf
Holmium, Ho
Indium, In
Iridium, Ir
Iron, Fe
Lanthanum, La
Lead, Pb
Magnesium, Mg
Manganese, Mn
Molybdenum, Mo

Neodymium, Nd
Nickel, Ni
Niobium, Nb
Palladium, Pd
Platinum, Pt
Praseodymium, Pr
Rhenium, Re
Ruthenium, Ru
Samarium, Sm
Selenium, Se
Silicon, Si
Silver, Ag
Strontium, Sr
Tantalum, Ta
Tellurium, Te
Terbium, Tb
Thallium, Tl
Thulium, Tm
Tin, Sb
Titanium, Ti
Tungsten, W
Vanadium, V
Ytterbium, Yb
Yttrium, Y
Zinc, Zn
Zirconium,
-

Fritz Glass
Iron Oxide, Fe₂O₃
Indium Tin Oxide, ITO
Lead Oxide, PbO
Lithium Niobate, LiNbO₃
Nickel Oxide, NiO
Pyrex 7740
Silicon Dioxide, SiO₂
Tantalum Nitride, TaN
Vanadium Dioxide, VO₂
Zinc Oxide, ZnO

Please enquire for any other material

ZnO + 2%Ag Target
(99.99%)
400mm x 100mm
x 3mm thick
Bonded to Cu Backing Plate



Hafnium Oxide (HfO₂)
8" dia x 6mm Target
(99.995%)



Silver (Ag), 99.99%
4" dia x 6mm Target
(Diffusion bonded)



VIN KAROLA INSTRUMENTS

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Bonded Targets:

It is highly recommended that all oxide based sputtering targets use a bonded copper backing plate. This will avoid any cracking of targets due to improper clamping and under high power applications.

Indium Alloy Solder Bonding:


It is recommended due to uniform bond-line thickness and covering almost 100% of the surface area. It offers excellent thermal and electrical conductivity and is compatible with RF/DC applications.


Silver-filled Epoxy Bonding:

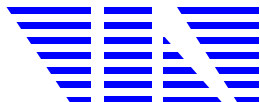
Silver-filled, low-outgassing, electrically and thermally conductive, 2-part epoxy is quite popular in bonding the target. Care should be taken to thoroughly mix the epoxy/resin and making sure that the bond-line thickness is quite uniform thus avoiding any air pockets. It is also compatible with RF/DC applications.

Precious Metal Targets Weight Chart:

The Table below shows approximate weight of various diameter/thickness sputtering targets fabricated from Gold, and Platinum metal. The bare target price consists of the metal weight, and the fabrication cost.

Target	Dia.	Thickness	Weight (gms)	Weight (Oz)	Remarks	
Gold (Au)	2.00"	0.125"	125	4.03	Gold density = 19.3 gm/cm ³ = 316.27 gm/in ³ 1 troy oz = 31 gms	Gold Target (99.99%) 3" dia x 0.125" thick Bonded to Cu Backing Plate 
	2.00"	0.250"	249	8.03		
	3.00"	0.125"	280	9.03		
	3.00"	0.250"	560	18.06		
	3.00"	1mm	88	2.84		
	3.00"	2mm	177	5.70		
	4.00"	0.125"	497	16.03		
	4.00"	0.250"	995	32.10		
	4.00"	3mm	470	15.16		

Target	Dia.	Thickness	Weight (gms)	Weight (Oz)	Remarks	
Platinum (Pt)	2.00"	0.125"	138	4.45	Platinum density = 21.45 gm/cm ³ = 351.50 gm/in ³ 1 troy oz = 31 gms	Pt Target (99.99%) 3" dia x 0.079" thick Bonded to Cu Backing Plate 
	2.00"	0.250"	276	8.91		
	3.00"	0.125"	311	10.02		
	3.00"	0.250"	621	20.04		
	3.00"	1mm	98	3.16		
	3.00"	2mm	196	6.32		
	4.00"	0.125"	552	17.81		
	4.00"	0.250"	1,104	35.62		
	4.00"	3mm	522	16.83		



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