High Quality Rotatable Sputtering Target

IKS specializes in producing high purity rotatable sputtering targets with the optimal process stability and performance for application in semiconductor, physical vapor deposition (PVD) display and optical industry. Our targets are offered in your specific requirements with the minimum purity of 99.5% up to 99.99% for pure elements and alloys.

Adopting advanced Hot Isostatic Pressing (HIP) and Vacuum Melting technology, the rotatable sputtering targets from IKS are characterized by high purity, high density, homogenous composition, fine grain size and long service life. We monitor every step (from the raw materials to the finished products) to make sure that only high-quality targets can be shipped from our factories.

IKS manufactures all sizes of high quality rotatable targets. Let us know the material and dimensions you need and we will meet your special requirement.

Application

Nowadays, rotatable target technology has been widely used in large area coating manufacturing of architectural glass, flat panel displays, solar photovoltaic and decorative coating. Our rotatable targets are very friendly to decorative film which ensures scratch resistance and decorative colorful finishes of hard coating on mobile phones, jewelry, watches, eyewear, automotive decoration, domestic appliances, sanitary wares, hardware, etc.

Main Products

Material	Symbol	Atomic Ratio	Purity	Relative Density	Technology	Advantage
Chromium	Cr	______	99.5%~99.95%	>99%	Hot Isostatic Pressing (HIP)	Good Oxidation Resistance
Tungsten	W	______	99.5%~99.95%	>99%	Hot Isostatic Pressing (HIP)	High Hardness
Titanium	Ti	______	99.9%~99.99%	>99%	Vacuum Melting	Good Wear Resistance
Nickel	Ni	______	99.9%~99.99%	>99%	Vacuum Melting	Great Corrosion Resistance
Molybdenum	Mo	______	99.9%~99.99%	>99%	Vacuum Melting	Great Corrosion Resistance
Silicon	Si	______	99.99%	>99%	Vacuum Melting	High Hardness
Silver	Ag	______	99.9%~99.99%	>99%	Vacuum Melting	Good Electrical and Thermal Conductivity
Tantalum	Ta	______	99.9%~99.99%	>99%	Vacuum Melting	High Ductility
Copper	Cu	______	99.9%~99.99%	>99%	Vacuum Melting	High Ductility, Good Thermal Conductivity and Corrosion Resistance
Graphite		______	99.9%~99.99%	>99%	Vacuum Melting	High Hardness
aluminum	Al	______	99.9%~99.99%	>99%	Vacuum Melting	Good Ductility, Thermal Conductivity and Corrosion Resistance
Silicon-Aluminum	SiAl	25/75 30/70 40/60 50/50	99.9%~99.99%	>99%	Hot Isostatic Pressing (HIP)	High Ductility and Good Wear Resistance

Titanium-Aluminum	TiAl	30/70 33/67 40/60 45/55 50/50 60/40 70/30 75/25 80/20	>99.7% (2N7)	>99%	Hot Isostatic Pressing (HIP)	High Mechanical Strength and Good Corrosion Resistance
Chromium-Aluminum	CrAl	25/75 30/70 40/60 50/50	>99.7% (2N7)	>99%	Hot Isostatic Pressing (HIP)	Good Oxidation Resistance and Corrosion Resistance
Titanium-Aluminum-Silicon	TiAlSi	30/60/10 40/50/10	>99.7% (2N7)	>99%	Hot Isostatic Pressing (HIP)	High Hardness and Ductility
Chromium-Aluminum-Silicon	CrAlSi	30/60/10 40/50/10	>99.7% (2N7)	>99%	Hot Isostatic Pressing (HIP)	Good Oxidation Resistance and Corrosion Resistance

More Information

Certification: ISO9001

Average Grain Size: 30-40μm (national standard is 100μm)

Stock Dimensions: OD70xID56xL/ OD100xID80xL (unlimited length)

Other special specifications are available on customer’s request.

Quality Analysis of TiAlSi Sputtering Target

(Take TiAlSi 30/60/10 at% as a sample)

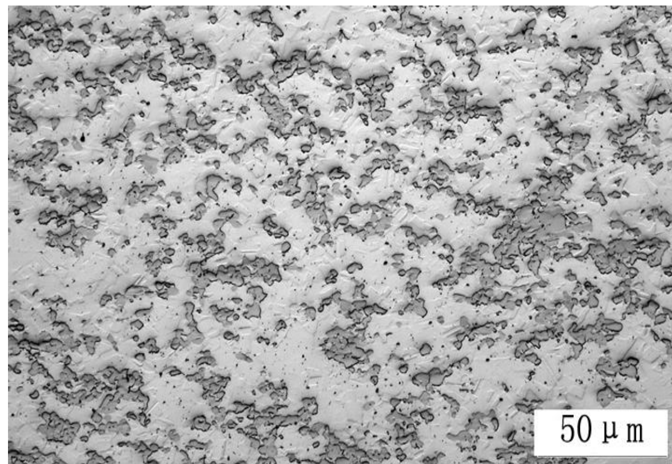
Main component (wt%)	Impurity content (%)					
TiAlSi	C	N	O	H	Fe	Ca
>99.7	0.0120	0.0007	0.1995	0.0110	0.0620	0.0048
	Ti	Al	Si			
	7.9%	48.86%	43.24%			

True density: 3.42(g/cm^3)   Theoretical density: >99%

Compared to Planar Targets, Our Rotatable Sputtering Targets Can

- Reduce the cost of ownership for large area coating operations.
- Provide larger erosion zones that provide 2 to 2.5 times the material utilization.
- Have longer service life that in turn results in much longer production runs and reduced downtime of the system.
- Increase the throughput of the coating equipment.
- Allow the use of higher power densities, and as a consequence, an increased deposition speed can be seen along with an improved performance during reactive sputtering.

The average grain size of our rotatable target is 30-40μm which is far below the national standard (100μm).



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