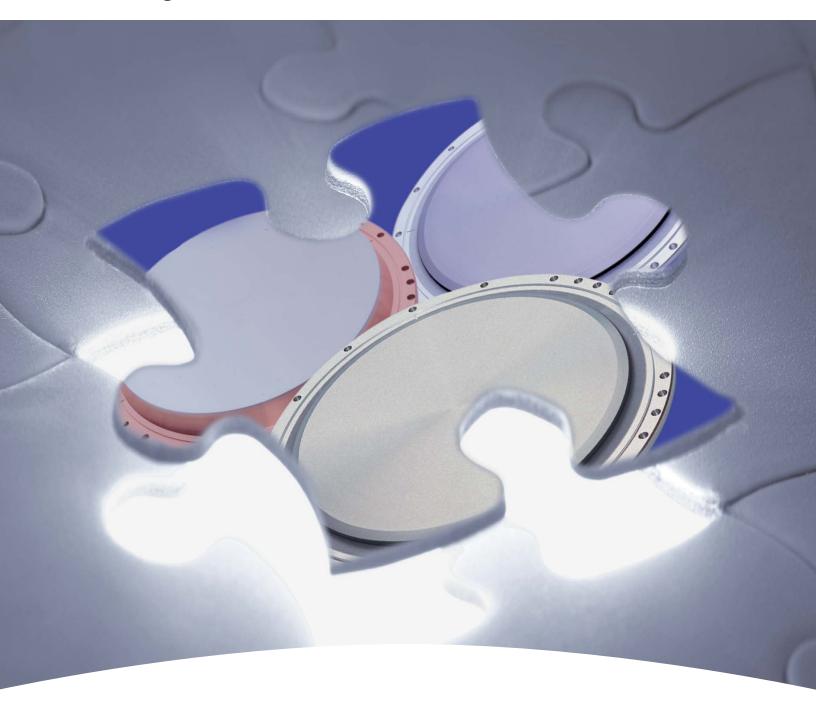
Honeywell



Honeywell 300mm Sputtering Targets

Honeywell 300mm Sputtering Targets

VARIOUS METALS AND CONFIGURATIONS



Diffusion Bonds for 300mm

State-of-the-Art Diffusion Bonding Processes

Target/ Backing Plate Material	Bond Strength (ksi)	Target Grain Size (µm)
Al/Al Alloy	>15	<50 ¹
Ti/Al Alloy	>15	<10
Ti/CuCr	>30	<20
Cu/CuCr	>10	<50
Ta/Al Alloy	>16	<50
Ta/CuCr	>20	<50
Ta/CuZn	>20	<50

¹ECAE Ultrafine Grain Target Available



Honeywell Electronic Materials

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OVERVIEW

Honeywell Electronic Materials offers 300mm sputtering targets for the semiconductor industry with various metals, configurations and purity.

Honeywell 300mm sputtering targets offer consistent chemistry and purity combined with a sound, uniform microstructure. The advanced metallurgical design of the targets ensures optimum sputter performance and high yields.

Our state-of-the-art diffusion bonding process offers superior custom 300mm targets with lightweight, high-strength backing plates which will ease handling and greatly reduce cost of ownership.



Honeywell Electronic Materials is one of the world's leading manufacturers of sputtering targets for the semiconductor industry.

METAL	BONDING	GRAIN SIZE	BENEFITS
Al	Al-Al Alloy	<50µm	- Al diffusion bonded to Al alloy backing plate is lighter than Al diffusion bonded to CuCr.
	ECAE®* Monolithic	<1µm	 Low particles, low arcing. Longer target life, better film uniformity. High-strength monolithic target for high power applications.
Cu	Cu-Al Alloy	<50µm	Fine and uniform microstructure.Strong backing plate, with high bond strength available for high power applications.
	ECAE Cu-Al Alloy	<5µm	Ultrafine grained Cu and Cu alloy targets with high- strength backing plates.Superior particle performance.
Со	Solder Bonding Co-Al Alloy	g <100µm <100µm	- High-strength diffusion bond available.
	Pass Thru Flux (PTF)		High PTF ensures the stability of the sputtering process.High PTF ensures better and higher target utilization.
Та	Ta-Al Alloy Ta-Cu Alloy	<50μm <50μm	High-strength Al Alloy, CuCr, CuZn backing plates available.
Ti	Monolithic	<10µm	Ti diffusion bonded to high-strength Al alloy offers stiffer and stronger backing plates compared to Ti monolithic configuration.
	Ti-Al Alloy Ti-Cu Alloy		Ti diffusion bonded targets have a lower cost.CuCr and CuZn backing plates available.

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