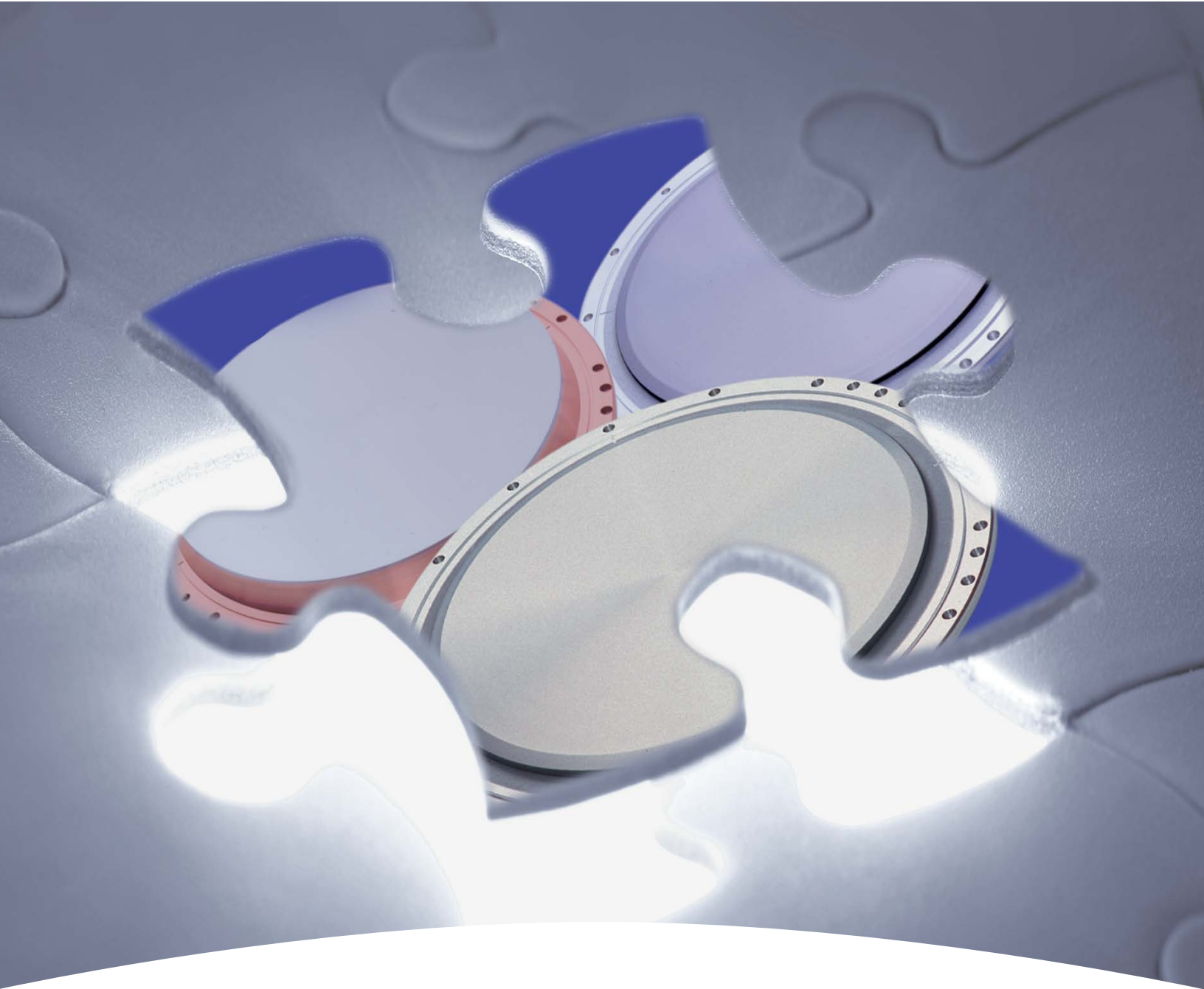




Honeywell 300mm Sputtering Targets

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

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	<50 μm	- Al diffusion bonded to Al alloy backing plate is lighter than Al diffusion bonded to CuCr.
	ECAE®* Monolithic	<1 μm	- Low particles, low arcing. - Longer target life, better film uniformity. - High-strength monolithic target for high power applications.
Cu	Cu-Al Alloy	<50 μm	- Fine and uniform microstructure. - Strong backing plate, with high bond strength available for high power applications.
	ECAE Cu-Al Alloy	<5 μm	- Ultrafine grained Cu and Cu alloy targets with high-strength backing plates. - Superior particle performance.
Co	Solder Bonding	<100 μm	- High-strength diffusion bond available.
	Co-Al Alloy	<100 μm	- High PTF ensures the stability of the sputtering process. - High PTF ensures better and higher target utilization.
Ta	Ta-Al Alloy	<50 μm	- High-strength Al Alloy, CuCr, CuZn backing plates available.
	Ta-Cu Alloy	<50 μm	
Ti	Monolithic	<10 μm	- 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.



RESPONSIBLE CARE®
OUR COMMITMENT TO SUSTAINABILITY

Honeywell Electronic Materials

USA: 1-509-252-2102

China: 86-21-28942481

Germany: 49-5137-999-9199

Japan: 81-3-6730-7092

Korea: 82-2-3483-5076

Singapore: 65-6580-3593

Taiwan: 886-3-6580300 ext.312

<https://www.electronicmaterials.com>

Although all statements and information contained herein are believed to be accurate and reliable, they are presented without guarantee or warranty of any kind, express or implied. Information provided herein does not relieve the user from the responsibility of carrying out its own tests and experiments, and the user assumes all risks and liability for use of the information and results obtained. Statements or suggestions concerning the use of materials and processes are made without representation or warranty that any such use is free of patent infringement and are not recommendations to infringe any patent. The user should not assume that all toxicity data and safety measures are indicated herein or that other measures may not be required. *Honeywell U.S. Patents 5,780,755 and 5,590,389 PB0141014Rev11

©2014 Honeywell International Inc.

Honeywell