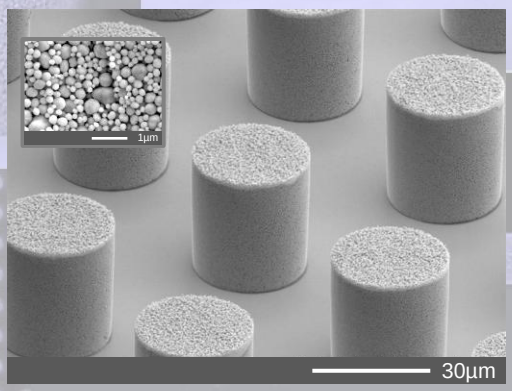
Bonding Technology Based on Au Particles / AuRoFUSE™ Preform

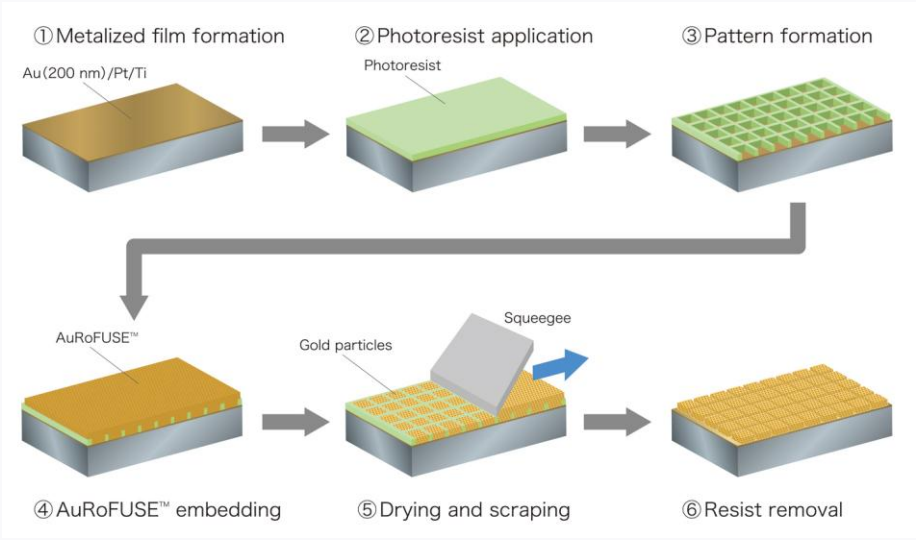
Features

- Micro-bump formation.
- Bonding can be performed at low temperatures and under atmospheric conditions.



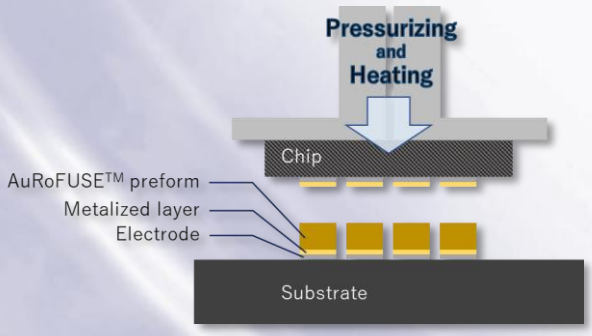
Preforming Process

TR-191T1002 paste material properties	
Au content	90wt%
Particle size /Mv	0.4μm



Bonding Process

Example: Flip-Chip Bonding



※Recommended condition

Pretreatment	:UV ozonation, etc.
Thermo-Compression	:200℃, 20MPa, 10sec.
Post-Bake	:200℃, 60min.

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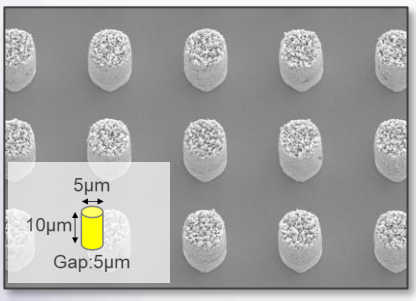
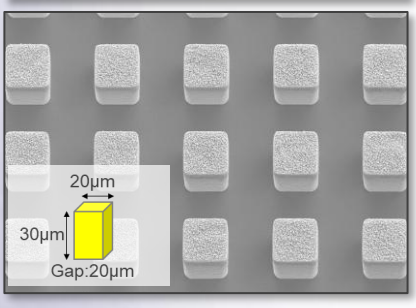
Features

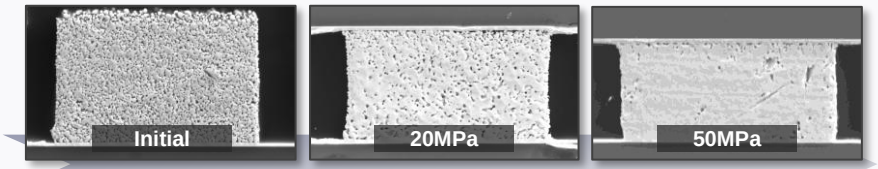
- Various shapes and sizes.
- Fine-pitch bonding with low lateral expansion.
- Exhibiting high compressibility.
- High reliability against oxidation and electromigration.

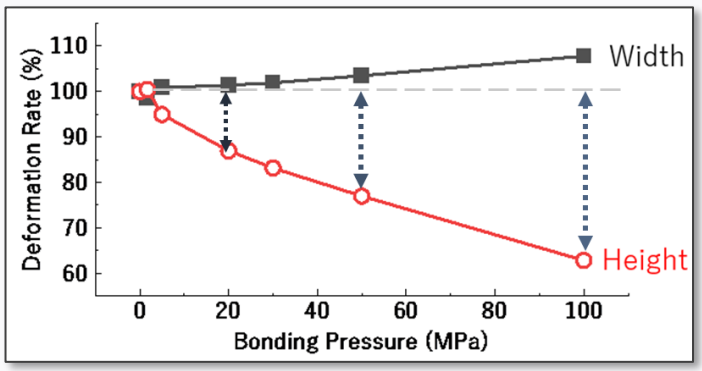
Examples



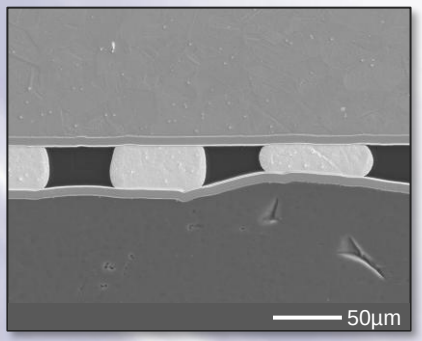


Low Lateral Expansion





Compressibility



☐ It adapts to bonding targets with different heights.

Properties

	AuRoFUSE™ preform 200℃, 20MPa, 10sec	Unit
Electrical resistivity	4.5	μΩ·cm
Thermal conductivity	200	W/mK
Young's modulus	57	GPa
Shear strength	>30	MPa
Coefficient of Liner Thermal Expansion(CTE)	14.0	ppm/K
Under Barrier Metal	Au/Pt/Ti, Au/Pd/Ni	

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