

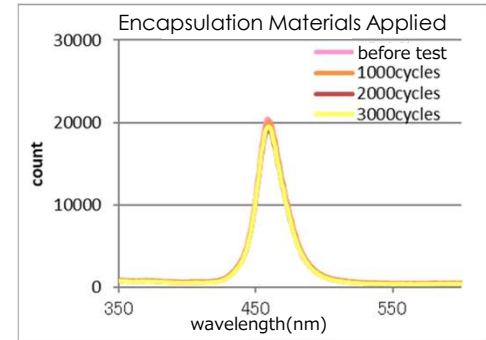
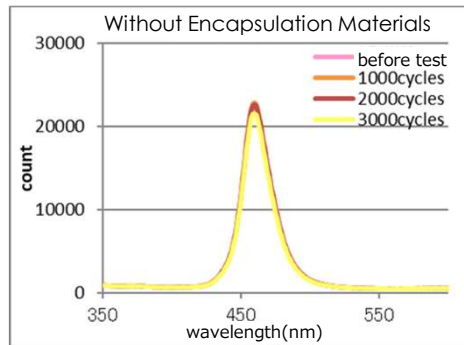
BANDO

Silver nanoparticle bonding paste FlowMetal™ SR9200

FlowMetal™ is a silver nanoparticle bonding paste with high reliability, which can be sintered at 150°C without pressure on it.

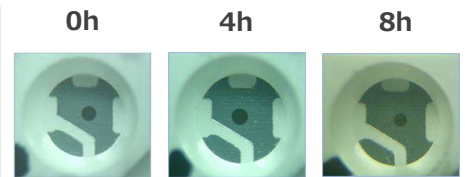
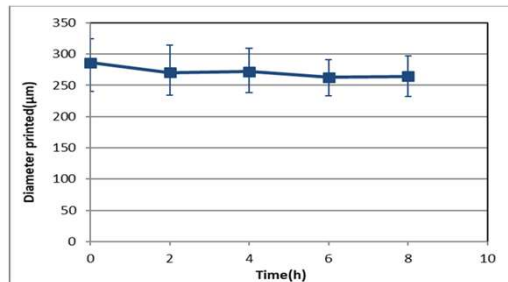
Material Properties

Heat Cycle(-40~125°C) test



Superior heat cycle performance

Long term spread test



Stable durability performance

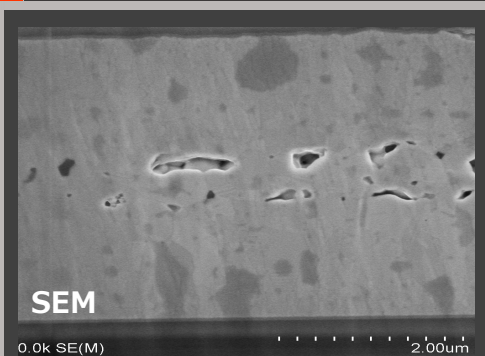
Application

- Applications for bonding high-power LED and Laser Diode. Cost saving alternative solution to AuSn brazing material.

Feature

- Pressure-free bonding at 150°C.
- Stable printing performance.
- Long pot life.

Cross Section SEM



Property table

		SR9200	SR9870	SR9950
Features		Lowest sintering temp.	Bonding to bare Cu surface without pressure	Low sintering temp. and available middle die size
Application		LED, UV-LED, LD (Small Chips, ~1.5mm×1.5mm)	Power semiconductor (Si, SiC) (Large Dies, ~10mm×10mm)	Power semiconductor (Si, SiC) (Middle Dies, ~5mm×5mm)
Surface required		Ag, Au	Ag, Au, Cu	Ag, Au
Process Conditions	Printing method	Dispenser, Pin-transfer	Stencil	Dispenser
	Sintering atmosphere	Air	Nitrogen atmosphere or Air	Air
	Sintering temperature(°C)	150	275	200
	Sintering time(min)	120	30	60
Properties	Sintering pressure	Pressure less	Pressure less	Pressure less
	Shear strength(MPa)	>70 (1mm×1mm)	>40 (5mm×5mm)	>120 (3mm×3mm)
	Thermal conductivity(W/mK)	140	300	215
	Electric resistivity(μΩcm)	5	2	3

Bando Chemical
Thermal Management
Special Site



BANDO Chemical Industries, Ltd.

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