ABOUT NICHING

Niching is a professional adhesive provider and specializes in Silver material, which provides state-of-the-art thermal management and electrical conductivity. Product lineup includes Conductive, Sintering and Customized Silver Pastes.

OUR STRENGTH

Professional R&D
10+ Years Experience

Customization
Capability

Agile
Responsiveness

PRODUCT FEATURES

Silver Sintering Materials for Big Die

Low modulus
Good adhesion for die size up to 15x15 mm
Application: TIM1 & die attach

High Shear Strength & Reliability

TCT >2000 & MSL1 passed
Good adhesion on various surfaces (Au, Ag, Cu, PPF.....)

Ultra High Thermal Conductivity

> 200 W/mK
Application:
High power device,
SiC MOSFET....
High sintering density

Ultra Low Sintering Temp.

175 dC sintering materials
Low thermal damage and stress
One-step curing profile

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Your Best Technology Partner On

LOW-TEMP. SINTERING SILVER PASTE

Core Technology

- Modification & Formulation of Organic Carriers
- Unique Technology on Low-Temp. Sliver Sintering
- Bonding Technology for Heterogeneous Interfaces
- Design & Manufacture of Critical Silver Materials

PRODUCT LINES

Property		Ultra High Thermal Application					High Thermal Application		Mid Thermal Application			Fast Cure
Property		DN-1206QB	DN-1206CR1	DN-1208L	DN-1301B	DN-1301C	DN-1806	DN-1906	DN-1705	DN-1715	DN-1718	DN-1505
Curing Temp degC		200	200	200	175	175	200	175	175	175	175	150
Viscosity @25 Deg.C E-viscometer@5rpm		11,000	10,800	23,000	13,000	10,800	14,000	14,000	8,500	8,000	9,100	16,000
Thixotropic Index @25 Deg.C 0.5rpm/5rpm		4.6	6.1	2.8	5.5	6.1	7.0	3.5	5.2	5.3	4.84	6.0
Volume Resistance Ohm.cm		$5.5*10^{-6}$	$9.0*10^{-6}$	$4.0*10^{-6}$	$2.5*10^{-6}$	$9.0*10^{-6}$	$9.0*10^{-5}$	$9.0*10^{-5}$	$4.0*10^{-4}$	$2.4*10^{-5}$	$3*10^{-5}$	-
Thermal Conductivity W/mk		140	150	200	130	130	85	80	2	15	22	3
Die Shear Strength @25 Deg.C with 3*3 mm Ag BSM Die	On Ag/Cu LF (MPa)	30	32	40	32	32	30	30	37	30	43	30 (Bare die)
	On Cu PCB (MPa)	25	32	10	25	27	22	25	45	30	-	-
Die Shear Strength @260 Deg.C with 3*3 mm Ag BSM Die	On Ag/Cu LF (MPa)	19	17	35	19	16	10	10	7	8	5	5 (Bare die)
	On Cu PCB (MPa)	10	10	10	12	10	12	12	7	8	-	-
Storage Modulus @25 Deg.C GPa		15.1	13	22.1	18	13	7	7	8.7	12	10	6.1
Tg degC		-	-	-	-	-	74	74	73	121	120	96
CTE ppm		40	30	18	51	30	36/169	36/169	40/182	49/160	50/160	48/227
Product Benefit		• Long open time • Low volume resistance • Die size up to 5*5	• Good RBO • Good adhesion on Cu • Die size up to 5*5	• Ultra high conductivity • Ultra high DSS on Au/Ag • Die size up to 8*8	• Long open time • Low volume resistance • Die size up to 5*5	• Good RBO • Good adhesion on Cu • Die size up to 5*5	• Low modulus (7 GPa) • Die size up to 15*15	• Solution for TIM1 • Coverage size up to 15*15	• Stamping • Low modulus • High adhesion on Ag, Au & Cu finish	• Dispensing • Good TC • Good reliability	• Stamping • Good TC • Good reliability *DSS is 1*1mm die	• Snap cure • TCT 1000(G)

DIE ATTACH

Spotlight

Excellent DSS
High Thermal
Low Resistance

Best for

RF PA
Power Discrete

Industry

Automotive
Telecommunications

TIM1

Spotlight

Pressure-less and printable
Thermal Management
Large Size Coverage

Best for

AI
ASIC

Industry

AI / HPC
Server

CLIP PACKAGE

Spotlight

High Electrical & Thermal Conductivity
Outstanding Reliability
Superior Cu Adhesion

Best for

High Power
Device/Module

Industry

Automotive
Industrial

PRODUCT APPLICATIONS