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			
Property	DN-1206QB	DN-1206CR1	DN-1208R1	DN-1301B	DN-1301C	DN-1802C1	DN-1806	DN-1906	DN-1703LM	DN-1705	DN-1715	DN-1718
Curing Temp degC	200	200	200	175	175	200	200	175	175	175	175	175
Viscosity @25 Deg.C E-viscometer@5rpm	11,000	10,800	12,000	13,000	10,800	14,000	14,000	14,000	9,500	8,500	8,000	9,100
Thixotropic Index @25 Deg.C 0.5rpm/5rpm	4.6	6.1	3.0	5.5	6.1	6.0	7.0	3.5	5.0	5.2	5.3	4.84
Open Time (for 1*1 mm2 die size) Hour	6	4	6	6	4	3	4	4	4	6	8	3
Volume Resistance Ohm.cm	$5.5*10^{-6}$	$9.0*10^{-6}$	$3.9*10^{-6}$	$2.5*10^{-6}$	$9.0*10^{-6}$	$4.0*10^{-5}$	$9.0*10^{-5}$	$9.0*10^{-5}$	$4.9*10^{-5}$	$4.0*10^{-4}$	$2.4*10^{-5}$	$3*10^{-5}$
Thermal Conductivity W/mk	140	150	230	130	130	75	85	80	5	2	15	22
Die Shear Strength @25 Deg.C with 3*3 mm Ag BSM Die On Ag/Cu LF (Mpa)	30	32	100	32	32	33	30	30	26	37	30	43
Die Shear Strength @25 Deg.C with 3*3 mm Ag BSM Die On Cu PCB (Mpa)	10	32	12	25	27	30	22	22	20	45	30	-
Die Shear Strength @260 Deg.C with 3*3 mm Ag BSM Die On Ag/Cu LF (Mpa)	19	17	100	19	16	10	10	10	10	7	8	5
Die Shear Strength @260 Deg.C with 3*3 mm Ag BSM Die On Cu PCB (Mpa)	19	10	12	12	10	10	12	12	7	7	8	-
Storage Modulus @25 Deg.C GPa	15.1	13	18	18	13	14	7	7	6	8.7	12	10
Tg dC	-	-	-	-	-	72	74	74	119	73	121	120
CTE ppm	40	30	15.2	51	30	25/80	36/169	36/169	28/73	40/182	49/160	50/160
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 2*2	• 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 volume resistance • Die size up to 3*3	• Low modulus (7 GPa) • Die size up to 15*15	• Solution for TIM1 • Coverage size up to 10*10	• Low modulus • Good TC	• Low modulus • High adhesion on Ag, Au & Cu finish	• Good TC • Good reliability	• Good TC • Good reliability *DSS is 1*1mm die

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

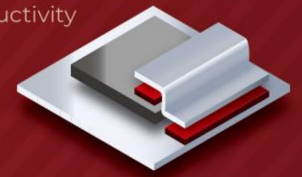
Industry
AI / HPC
Server

CLIP PACKAGE

Spotlight
High Electrical & Thermal Conductivity
Outstanding Reliability
Superior Cu Adhesion

Best for
High Power
Device/Module

Industry
Automotive
Industrial



PRODUCT APPLICATIONS