ABOUT NICHING

Niching is a Taiwan-based thermal material provider. We provide high thermal conductivity material with unique StressRelief technology aiming to revolve thermal issue inside the semiconductor package. We also offer customization service to meet unique requirements.

OUR STRENGTH

25% Ph. D.

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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NICHING
NICHING INDUSTRIAL CORPORATION





Your Best Technology Partner On

SINTERING & THERMAL ADHESIVE

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

Power Device & RF Die Attach

Managing thermal loads is a massive challenge for Power and RF. NICHING has built our conductive and sintering tools to solve this right at the interface. By boosting thermal performance there, we're able to extend chip life without limiting performance.

Conductive Adhesives

NICHING provides eco-friendly, lead-free alternatives to traditional solders. Our silver-filled conductive pastes are optimized for high-density semiconductor packaging, delivering industry-leading thermal and electrical conductivity.



Product	Volume Resistance (Ohm.cm)	Viscosity (cP)	Die Shear Strength (MPa)	Storage Modulus (GPa)	Curing Temp. (dC)	Thermal Conductivity (W/mk)	Characteristics
DN-1718	$3*10^{-5}$	9,100	43	10	175	22	Stamping/ Printable/ Bare Si adhesion
DN-1715	$2.4*10^{-5}$	8,000	30	12	175	15	Dispensing
DN-1505	-	17,000	30	6	150	1.1	Low Temp./ Fast Cure

*Die Shear Strength (DSS) testing conditions: 3×3 mm Ag BSM die, 25°C.

Pressure-less Ag Sintering

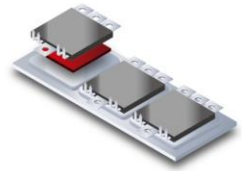
An ideal solution for high-power density applications, including Power IC, GaN, and SiC devices, this material simplifies processing by forming a robust metallic bond without external pressure. It is specifically engineered to protect sensitive, thin-die structures and high-offset-ratio dies, ensuring superior heat dissipation in challenging Power and RF environments.

Product	Volume Resistance (Ohm.cm)	Viscosity (cP)	Die Shear Strength @25°C (MPa)	Storage Modulus (GPa)	Curing Temp. (dC)	Thermal Conductivity (W/mk)	Die Size (mm)	Characteristics
DN-1208L	$4*10^{-6}$	23,000	40	22	200	230	~8*8	Printable/ Bare Cu application
DN-1213	$4*10^{-6}$	25,000	32	15	200	150	~3*3	Long open time
DN-1806	$9*10^{-5}$	14,000	30	7	200	85	~15*15	Low stress

*Die Shear Strength (DSS) testing conditions: 3×3 mm Ag BSM die, 25°C.

Pressure-assist Ag Sintering

Delivering bulk-metal thermal conductivity, this solution provides the highest shear strength and thermal reliability, making it the premier choice for power modules and EV inverters.



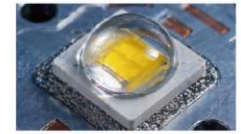
Product	Viscosity (cP)	Porosity (%)	Torque (N-m)	Curing Temp. (dC)	Thermal Conductivity (W/mk)	Applied Size (mm)	Characteristics
DN-2201	20,000	<1	>100	250	300	~50*50	Large area/ Package Attach

LED Die Attach

As the LED, IR, and sensor industries shift toward high-power applications, superior thermal and electrical performance make all the difference. With our deep expertise in materials science, we offer specialized conductive and die-attach solutions for LED, IR, VCSEL, and sensors.

Conductive Adhesives for LED

Designed for standard LED applications. Our paste offers excellent stamping performance, ensuring consistent electrical connectivity while maximizing packaging throughput.

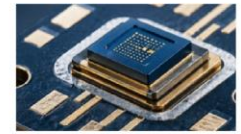


Product	Volume Resistance (Ohm.cm)	Viscosity (cP)	Die Shear Strength @25°C (MPa)	Storage Modulus (GPa)	Curing Temp. (dC)	Thermal Conductivity (W/mk)	Characteristics
DN-1718	$3*10^{-5}$	9,100	58	10	175	22	Stamping/ Bare Si
DN-1705	$4*10^{-4}$	8,500	55	8.7	175	2	Adhesion on Cu/ Low stress

*Die Shear Strength (DSS) testing conditions: 1×1 mm Ag BSM die, 25°C.

Pressure-less Ag Sintering

The best choice for high-power Infrared LED, automotive lighting, and advanced sensing applications. This provides ultra-high thermal conductivity to effectively manage the heat of IR and sensor components, maintaining stability under demanding environments.



Product	Volume Resistance (Ohm.cm)	Viscosity (cP)	Die Shear Strength (MPa)	Storage Modulus (GPa)	Curing Temp. (dC)	Thermal Conductivity (W/mk)	Die Size (mm)	Characteristics
DN-1208R1	$3.7*10^{-6}$	12,000	66	30	200	200	~1*1	Stamping / Dispensing/ High Reliability
DN-1206QB	$4*10^{-6}$	14,000	56	15	200	140	~3*3	Stamping / Dispensing/ Low stress

*Die Shear Strength (DSS) testing conditions: 1×1 mm Au BSM die, 25°C.

Product Under Development

High Thermal Pressure-less Cu Sintering

UC-3201

Engineered for pressure-less processing, Cu sintering adhesive offers a cost-effective, high-thermal interface that rivals silver performance.

Ultra-High Thermal Pressure-less Cu Sintering

UC-4201

Designed for extreme power densities, this solution utilizes controlled pressure to achieve a void-free interface. It is the ultimate choice for power modules requiring maximum heat dissipation on Cu substrate.

Advanced TIM1 Solutions for Next-Generation Packaging

ThermoBridge

Our TIM1 delivers high conductivity and low thermal resistance, bridging the gap between die and lid with precision. Engineered to handle CTE mismatch, we will provide the best thermal bond for your semiconductor's designs.