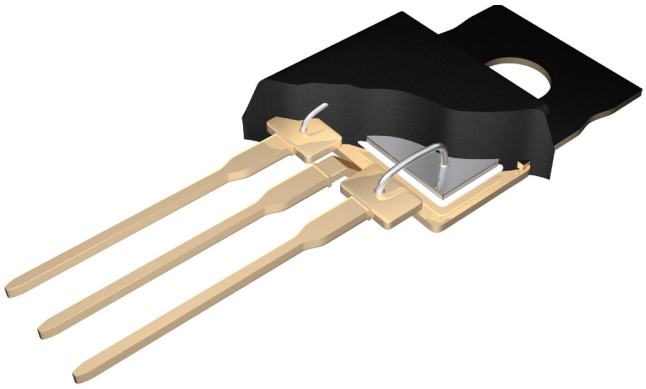
LOCTITE®

AUTOMOTIVE GRADE PRESSURE-LESS **ULTRA-HIGH THERMAL CONDUCTIVITY** SINTERING DIE ATTACH

LOCTITE® *ABLESTIK* ABP 8068TI



LOCTITE® *ABLESTIK* ABP 8068TI
Ultra-high thermal conductivity
sintering die attach

LOCTITE® *ABLESTIK* ABP 8068TI offers semiconductor packaging specialists a high-performance die attach material for high thermal and electrical lead frame packaging suitable for automotive and industrial applications. Unlike traditional silver sintering materials that need pressure, LOCTITE® *ABLESTIK* ABP 8068TI provides standard die attach processing capability and low temperature curing (175°C) to form a rigid sintered Ag network in the bulk structure and at the interface. The material's thermal conductivity is excellent at 165 W/m-K with stable RDS(on) following temperature cycling.

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Technical Information	
Technology	Pressure-less sintering
Color	Silver liquid
Thixotropic Index (0.5/5 rpm)	6.5
Viscosity, Brookfield CP51 25°C mPas (cP)	Speed 5 rpm: 13,000
Volume Resistivity (ohm-cm)	$9.00x10^{-06}$
Die Shear Strength at 260°C: (kg-f): 7x7 mm Ag BSM die on Ag 2x2 mm Ag BSM die on Ag	 60 12.3
Coefficient of Thermal Expansion (ppm/°C)	26
Bulk Thermal Conductivity (W/mk)	165
Tensile Modulus, DMA (GPa)	-65°C: 27.9
	25°C: 24.0
	150°C: 13.8
	200°C: 9.4
Optimal Storage	-40°C

Key Features and Benefits:

High Reliability

- Meets challenging automotive grade reliability standards
- High adhesion for die sizes < 3.0 mm x 3.0 mm with no voids on Ag/Cu or PPF lead frames
- High die shear strength on various substrate finishes including Ag, Cu, NiPdAu and Au
- Best-in-Class Thermal and Electrical Performance
- Bulk thermal conductivity up to 165 W/m-K
- Excellent electrical conductivity and in-package RDS(on) performance, stable RDS(on) after 1,000 thermal cycles

Lower-Temperature Sintering

- Drop-in die attach solution, eliminates the need for high pressure and high temperature to achieve sintering
- Fully cured at 175°C or above for Ag, Au and PPF surfaces, curable in air and nitrogen atmospheres
- Pressure-less process induces no/low stress on thin die

Workability/Processability

- Standard die attach dispensing process, with no silver settling or separation
- Stable, consistent dispense performance for 24 hrs.
- 3-hr. open time with no observable voiding
- 24-hr. stage time in air with consistent die shear strength

Health and Safety

- Reduced VOCs versus other high thermal conductivity die attach pastes

Interested in market-leading thermal and electrical performance?

Get in touch with our team.

henkel-adhesives.com/electronics

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