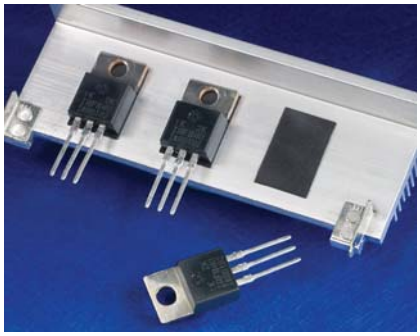
Liqui-Bond® SA 1000 (One-Part)

Thermally Conductive, One-Part, Liquid Silicone Adhesive

Features and Benefits

- High thermal performance
- Eliminates need for mechanical fasteners
- Low viscosity for ease of screening or stenciling
- Can achieve a very thin bond line
- Mechanical and chemical stability
- Maintains structural bond in severe-environment applications
- Heat cure



Liqui-Bond SA 1000 is a thermally conductive, one-part liquid silicone adhesive with a low viscosity for easy screenability. Liqui-Bond SA 1000 features a high thermal performance and maintains it's structure even in severe-environment applications.

Liqui-Bond SA 1000 features excellent low and high-temperature mechanical and chemical stability. The material's mild elastic properties assist in relieving CTE stresses during thermal cycling. Liqui-Bond SA 1000 contains no cure by-products, cures at elevated temperatures and requires refrigeration storage at 10°C. The material is available in both tube and mid-sized container forms.

TYPICAL PROPERTIES OF LIQUI-BOND SA 1000

PROPERTY AS SUPPLIED	IMPERIAL VALUE	METRIC VALUE	TEST METHOD
Color	Black	Black	Visual
Viscosity (cps) (1)	125,000	125,000	ASTM B2196
Density (g/cc)	2.4	2.4	ASTM D792
Shelf Life @ 10°C (months)	6	6	—
PROPERTY AS CURED - PHYSICAL			
Hardness (Shore A)	75	75	ASTM D2240
Continuous Use Temp (°F) / (°C)	-76 to 392	-60 to 200	—
Shear Strength (psi) / (MPa)	200	1.4	ASTM D1002
PROPERTY AS CURED - ELECTRICAL			
Dielectric Strength (V/mil) / (V/mm)	250	10,000	ASTM D149
Dielectric Constant (1000 Hz)	5.5	5.5	ASTM D150
Volume Resistivity (Ohm-meter)	10^{10}	10^{10}	ASTM D257
Flame Rating	V-O	V-O	U.L.94
PROPERTY AS CURED - THERMAL			
Thermal Conductivity (W/m-K)	1.0	1.0	ASTM D5470
CURE SCHEDULE			
Pot Life @ 25°C (hours) (2)	10	10	—
Cure @ 125°C (minutes) (3)	20	20	—
Cure @ 150°C (minutes) (3)	10	10	—

1) Brookfield RV, Heli-path, Spindle TF @ 20 rpm, 25°C.
2) Based on 1/8" diameter bead.
3) Cure Schedule - time after cure temperature is achieved at the interface. Ramp time is application dependent.

Typical Applications Include:

- PCBA to housing
- Discrete component to heat spreader

Configurations Available:

- With or without glass beads

Building a Part Number

LBSA1000 – 00 – 00 – 30cc – NA

- Section A: LBSA1000 = Liqui-Bond SA 1000 Liquid Adhesive Material
- Section B: 00 = No spacer beads; 07 = 0.007" spacer beads
- Section C: 00 = No adhesive
- Section D: Cartridges: 30cc = 30.0cc, 600cc = 600.0cc (ml); Pail: 0.85G = 0.85-gallon, 5G = 5-gallon
- Section E: NA = Selected standard option. If not selecting a standard option, insert company name, drawing number, and revision level.

Standard Options

example

Note: To build a part number, visit our website at www.bergquistcompany.com.

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