

Liqui-Bond® SA 1800 (One-Part)

Thermally Conductive, One-Part, Liquid Silicone Adhesive

Features and Benefits

- High thermal conductivity: 1.8 W/m-K
- Eliminates need for mechanical fasteners
- Low viscosity for ease of screening or stenciling
- Maintains structural bond in severe-environment applications
- Heat cure



Liqui-Bond SA 1800 is a high performance, liquid silicone adhesive that cures to a solid bonding elastomer. The adhesive is supplied as a one-part liquid component, offered in a tube or mid-size container.

Liqui-Bond SA 1800 features a combination of high thermal conductivity with a low viscosity which allows for ease of screen or stencil application. This material is also ideal for high volume automated pattern dispensing. Liqui-Bond SA 1800's low viscosity allows the material to achieve a very thin bond line, producing excellent thermal performance and a high shear strength.

Liqui-Bond SA 1800's mild elastic properties assist in relieving CTE stresses during thermal cycling. The material cures at elevated temperatures and requires refrigeration storage at 10°C. Liqui-Bond SA 1800 is available with optional glass beads to provide a consistent stand-off and ensure dielectric integrity.

TYPICAL PROPERTIES OF LIQUI-BOND SA 1800			
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)	2.8	2.8	ASTM D792
Shelf Life @ 10°C (months)	6	6	—
PROPERTY AS CURED - PHYSICAL			
Hardness (Shore A)	80	80	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)	6.0	6.0	ASTM D150
Volume Resistivity (Ohm-meter)	10 ¹¹	10 ¹¹	ASTM D257
Flame Rating	V-O	V-O	U.L.94
PROPERTY AS CURED - THERMAL			
Thermal Conductivity (W/m-K)	1.8	1.8	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.

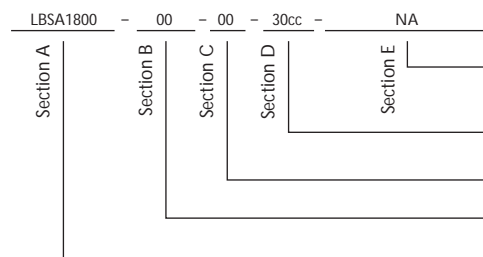
Typical Applications Include:

- PCB assembly to housing
- Discrete component to heat spreader

Configurations Available:

- With or without glass beads

Building a Part Number



Standard Options

◀ example

NA = Selected standard option. If not selecting a standard option, insert company name, drawing number, and revision level.

Cartridges: 30cc = 30.0cc, 600cc = 600.0cc (ml)
 Pail: 0.85G = 0.85-gallon, 5G = 5-gallon

00 = No adhesive

00 = No spacer beads
 07 = 0.007" spacer beads

LBSA1800 = Liqui-Bond SA 1800 (One-Part)
 Liquid Adhesive Material

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



www.bergquistcompany.com

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