



BERGQUIST LIQUI BOND TLB EA1800

BERGQUIST LIQUI-BOND EA 1805
June 2019

PRODUCT DESCRIPTION

Thermally Conductive, Two-Part, Liquid Epoxy Adhesive.

Technology	Epoxy
Appearance - Part A	Gray
Appearance - Part B	Pale yellow
Cure	Room temperature cure
Application	Thermal management, TIM (Thermal Interface Material)
Mix Ratio by volume: Part A: Part B	1 : 1
Operating Temperature Range	-40 to 125°C
UL Flammability Rating	UL 94 V-0

FEATURES AND BENEFITS

- Room temperature cure
- Room temperature storage
- Thermal Conductivity: 1.8 W/m-K
- Eliminates need for mechanical fasteners
- Maintains structural bond in severe environment applications
- Excellent chemical stability and mechanical stability

BERGQUIST LIQUI BOND TLB EA1800 is a two-component, epoxy based, liquid-dispensable adhesive formulated with a thermal conductivity of 1.8 W/mK. It is supplied in a two-component format, and refrigeration is not required.

BERGQUIST LIQUI BOND TLB EA1800 has a high bond strength with room temperature cure that can be accelerated with additional heat. The high bond strength eliminates the need for fasteners and maintains structural bond in severe environments.

Recommended usage is filling any surface irregularities between heat sources and heat spreaders of similar CTE. BERGQUIST LIQUI BOND TLB EA1800 is thixotropic and will remain in place during dispensing, and the material will flow easily under minimal pressure resulting in thin bondlines and very low stress placed on fragile components during assembly.

TYPICAL APPLICATIONS

- LED lighting
- Power supplies
- Discrete component to heat spreader
- Automotive lighting

- White goods

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, High shear, Capillary, ASTM D2196, Pa-s:

Part A	60
Part B	62

200/ sec, Part A and B measured separately

Density, ASTM D792, g/cc 2.7

Shelf Life @ 25°C, months 6

TYPICAL CURE SCHEDULE

Cure Schedule

10 hours @ 25°C or
10 minutes @ 125°C ⁽¹⁾

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties

Hardness, Shore D, 30 second delay, ASTM D2240 90

Electrical Properties

Dielectric Strength, ASTM D149, V/mm 10,000

Dielectric Constant, ASTM D150 @ 1,000 Hz 7.5

Volume Resistivity, ASTM D257, ohm-meter 1×10^{14}

Thermal Properties

Thermal Conductivity, ASTM D5470, W/(m-K) 1.8

TYPICAL PERFORMANCE OF CURED MATERIAL

Shear Strength

Shear Strength, ASTM D1002:

Al to Al @ 25°C	MPa	3.1
	(psi)	(450)

1) 90% cure cycle - time after cure temperature is achieved at the interface. Ramp time is application dependent

GENERAL INFORMATION

For safe handling information on this product, consult the Safety Data Sheet, (SDS).

Not for product specifications

The technical data contained herein are intended as reference only. Please contact your local quality department for assistance and recommendations on specifications for this product.

The above cure profiles are guideline recommendations. Cure conditions (time and temperature) may vary based on customers' experience and their application requirements, as well as customer curing equipment, oven loading and actual oven temperatures.

CONFIGURATIONS AVAILABLE

- Supplied in cartridge or kit form

STORAGE

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal Storage: 25°C for a 6 month shelf life, in sealed containers with moisture barrier packaging.

Conversions

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$
 $\text{kV/mm} \times 25.4 = \text{V/mil}$
 $\text{mm} / 25.4 = \text{inches}$
 $\text{N} \times 0.225 = \text{lb/F}$
 $\text{N/mm} \times 5.71 = \text{lb/in}$
 $\text{psi} \times 145 = \text{N/mm}^2$
 $\text{MPa} = \text{N/mm}^2$
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$
 $\text{MPa}\cdot\text{s} = \text{cP}$

Disclaimer**Note:**

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Belgium NV, Henkel Electronic Materials NV, Henkel Nederland BV, Henkel Technologies France SAS and Henkel France SA please additionally note the following:

In case Henkel would be nevertheless held liable, on whatever legal ground, Henkel's liability will in no event exceed the amount of the concerned delivery.

In case products are delivered by Henkel Colombiana, S.A.S. the following disclaimer is applicable:

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Corporation, Resin Technology Group, Inc., or Henkel Canada Corporation, the following disclaimer is applicable:

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use**

of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits. The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

Trademark usage: [Except as otherwise noted] All trademarks in this document are trademarks and/or registered trademarks of Henkel and its affiliates in the U.S. and elsewhere.

Reference **N/A**

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Bergquist Company:

[LBEA1805-00-30-50cc](#) [LBEA1805-00-30-200CC](#) [LBEA1805-07-30-200CC](#) [LBEA1805-10-30-200CC](#) [LBEA1805-07-30-50CC](#) [LBEA1805-10-30-50CC](#) [LBEA1805-07-30-2G](#) [LBEA1805-07-30-400CC](#) [LBEA1805-10-30-1200CC](#) [LBEA1805-10-30-2G](#) [LBEA1805-10-30-400CC](#) [LBEA1805-10-30-7G](#) [LBEA1805-00-30-1200CC](#) [LBEA1805-00-30-2G](#) [LBEA1805-00-30-400CC](#) [LBEA1805-00-30-7G](#) [LBEA1805-07-30-1200CC](#)