



BERGQUIST TGR 1500A

Known as BERGQUIST TIC 1000A
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PRODUCT DESCRIPTION

High Performance, Value Compound for High-End Computer Processors.

Technology	Silicone
Appearance	Gray
Application	Thermal management, Thermally conductive adhesive
Operating Temperature	150 °C

FEATURES AND BENEFITS

- High thermal performance: 0.32°C/W@ 50 psi
- Good screenability
- Room temperature storage
- No post “cure” required
- Exceptional value

BERGQUIST TGR 1500A is a high performance, thermally conductive compound intended for use as a thermal interface material between a highend computer processor and a heat sink. Other high watt density applications will also benefit from the extremely low thermal impedance of BERGQUIST TGR 1500A.

The BERGQUIST TGR 1500A compound wets-out the thermal interface surfaces and flows to produce the lowest thermal impedance. The compound requires pressure of the assembly to cause flow. The BERGQUIST TGR 1500A compound will resist dripping.

For microprocessor applications, traditional screw fastening or spring clamping methods will provide adequate force to optimize the thermal performance of BERGQUIST TGR 1500A. An optimized application would utilize the minimum volume of BERGQUIST TGR 1500A material necessary to ensure complete wet-out of both mechanical interfaces.

TYPICAL APPLICATIONS

- High performance CPUs and GPUs

TYPICAL PROPERTIES

Physical Properties

Density, ASTM D792, g/cc 2.1

Electrical Properties

Electrical Resistivity, ASTM D257, ohm-meter N/A
The compound contains an electrically conductive filler surrounded by electrically non-conductive resin

Thermal Properties

Thermal Conductivity , ASTM D5470, W/(m-K) 1.5

Thermal Performance vs. Pressure

TO-220 Thermal Performance, °C/W

@ 10 psi	0.32
@ 25 psi	0.32
@ 50 psi	0.32
@ 100 psi	0.31
@ 200 psi	0.28

TO-220 performance data is provided as a reference to compare material thermal performance

GENERAL INFORMATION

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

Directions for use

Assembly

BERGQUIST TGR 1500A has good screenability. No solvent is used to reduce the viscosity, so no post “cure” conditioning is required

Application Methods

1. Pre-clean heat sink and component interface with isopropyl alcohol prior to assembly or repair. Ensure heat sink is dry before applying BERGQUIST TGR 1500A
2. Dispense and/or screenprint BERGQUIST TGR 1500A compound onto the processor or heat sink surface like thermal grease (see a Bergquist Representative for application information)
3. Assemble the processor and heat sink with spring clips or constant pressure fasteners

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.



Conversions

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

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