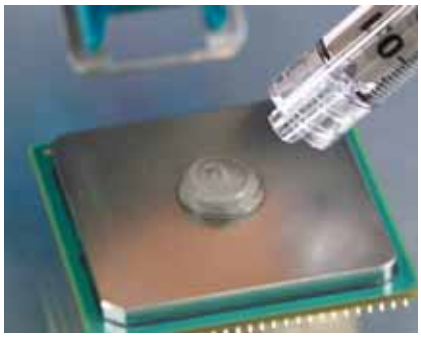
TIC™ 1000A

High Performance, Value Compound for High-End Computer Processors

Features and Benefits

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



TIC 1000A is a high performance, thermally conductive compound intended for use as a thermal interface material between a high-end computer processor and a heat sink. Other high watt density applications will also benefit from the extremely low thermal impedance of TIC 1000A.

TIC 1000A 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 TIC 1000A compound will resist dripping.

For microprocessor applications, traditional screw fastening or spring clamping methods will provide adequate force to optimize the thermal performance of TIC 1000A.

An optimized application would utilize the minimum volume of TIC 1000A material necessary to ensure complete wet-out of both mechanical interfaces.

Assembly – No Post Screen Cure

TIC 1000A has good screenability. No solvent is used to reduce the viscosity, so no post "cure" conditioning is required.

TYPICAL PROPERTIES OF TIC 1000A

PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD
Color	Gray	Gray	Visual
Density (g/cc)	2.1	2.1	ASTM D792
Continuous Use Temp (°F) / (°C)	302	150	—
ELECTRICAL			
Electrical Resistivity (Ohm-meter) (1)	N/A	N/A	ASTM D257
THERMAL			
Thermal Conductivity (W/m-K)	1.5	1.5	ASTM D5470

THERMAL PERFORMANCE vs PRESSURE					
Pressure (psi)	10	25	50	100	200
TO-220 Thermal Performance (°C/W) (2)	0.32	0.32	0.32	0.31	0.28

1) The compound contains an electrically conductive filler surrounded by electrically non-conductive resin.
2) TO-220 performance data is provided as a reference to compare material thermal performance.

Application Cleanliness

1. Pre-clean heat sink and component interface with isopropyl alcohol prior to assembly or repair. Ensure heat sink is dry before applying TIC 1000A.

Application Methods

1. Dispense and/or screenprint TIC 1000A compound onto the processor or heat sink surface like thermal grease (see a Bergquist Representative for application information).
2. Assemble the processor and heat sink with spring clips or constant-pressure fasteners.

Typical Applications Include:

- High performance CPUs
- High performance GPUs

Building a Part Number

TIC1000A – 00 – 00 – 25cc – NA

- Section A: TIC1000A = Thermal Interface Compound 1000A
- Section B: 00 = No options
- Section C: 00 = No options
- Section D: Containers: 5cc = 5.0cc, 25cc = 25.0cc, 200cc = 200.0cc; Cartridge: 600cc = 600.0cc
- 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.

TIC™: U.S. Patents 6,797,758; 6,624,224; 6,339,120.

THE BERGQUIST COMPANY www.bergquistcompany.com

The Bergquist Company - North American Headquarters
18930 West 78th Street
Chanhassen, MN 55317
Phone: 800-347-4572
Fax: 952-835-0430

The Bergquist Company - European Headquarters
Bramenberg 9a, 3755 BT Eemnes
Netherlands
Phone: 31-35-5380684
Fax: 31-35-5380295

The Bergquist Company - Asia
Room 15, 8/F Wah Wai Industrial Centre
No. 38-40, Au Pui Wan Street
Fotan, Shatin, N.T. Hong Kong
Ph: 852.2690.9296
Fax: 852.2690.2344

PDS_TIC_1000A_12.08