

## *Thermal Interface Material G-751*

### PRODUCT DESCRIPTION

Shrinking die and increasing power demands continue to make the thermal solution a critical part of IC package design. Shin-Etsu MicroSi's G-751 thermal interface material improves performance by enabling packages to run cooler without sacrificing reliability. The ability of G-751 to dissipate heat enables users to reduce the overall cost of their thermal solution. Shin-Etsu MicroSi's G-751 is designed to meet current and future thermal management requirements, thus providing drop-in solutions for new IC packages, without the expense of qualifications. This highly thermal conductive grease has been successfully used on CPUs, GPUs, PLCs and other temperature sensitive components.

### PROPERTIES

#### Property

|                              |           |
|------------------------------|-----------|
| Viscosity (Pascal Second)    | 250 – 400 |
| Appearance                   | Gray      |
| Volatile Content             | < 1.0%    |
| Specific Gravity             | 2.5       |
| Thermal Conductivity(W/m °K) | 4.5       |

#### Packaging Description

Thermal Grease G-751 is available in:

|                        |                         |
|------------------------|-------------------------|
| Syringes:              | 0.5 gm, 1.0 gm, 1.5 gm, |
| Cartridges:            | 55 gm, 150 gm, 400 gm   |
| Bulk:                  | 2.0 Kg                  |
| Custom Sizes Available |                         |
| Storage Conditions:    | 60°F to 85°F            |

# Thermal Interface Material G-751

## APPLICATION

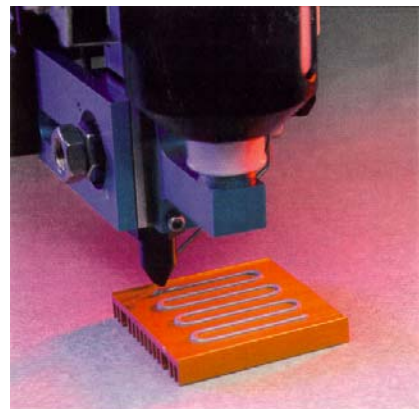
Shin-Etsu MicroSi's G-751 material is available in several cost effective packages which include syringes, cartridges and bulk containers.



Shin-Etsu MicroSi's syringes are ideal for manual applications. Pre-filled syringes assure that a consistent shot weight is applied to the intended surface. Shin-Etsu MicroSi's SQC processes provide a consistent dispense weight with each syringe. The Syringe Delivery Method provides the most flexibility for an organization, with the ability to utilize the

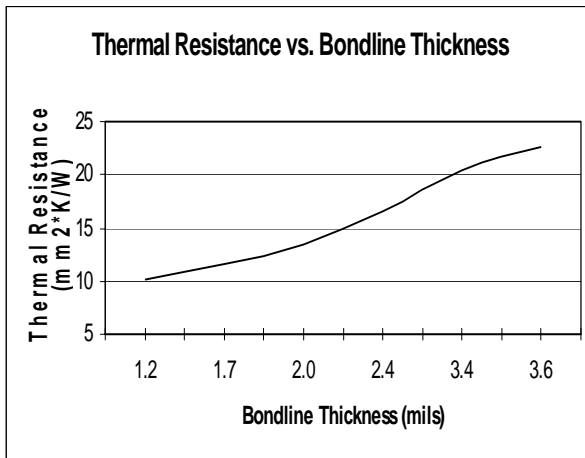
same product package for production and field requirements without additional investment in application tools.

For medium to large production applications, Shin-Etsu MicroSi can provide G-751 in cartridges. The cartridge delivery system can be utilized with either manual, automated or silk-screening equipment. The cartridge delivery system allows dispensing of the material, while protecting the integrity and exposure level of the unused portion.



Bulk delivery provides the lowest possible unit cost. Bulk purchases are available for large scale production facilities where material is consumed at a rapid rate.

## PERFORMANCE



A key factor in selecting a thermal interface material is the relationship between bond line thickness (BLT) and thermal resistance. The chart on the left illustrates very low thermal resistance at different bond line thicknesses.

The viscosity of G-751 allows for consistent dispense patterns when utilizing stencil printing or automated dispense machines. This advantage allows for tighter control in the use of and dispensing of the thermal interface material.

## Shin-Etsu MicroSi

Shin-Etsu MicroSi, Inc. is a wholly owned subsidiary of Shin-Etsu Chemical Co., Ltd., a global leader in research, development and the manufacture of chemicals used in the semiconductor industry. From its headquarters in Phoenix, Arizona, Shin-Etsu MicroSi provides high performance products and materials including:

- Thermal Interface Materials
- KJR Liquid Coating Materials
- Contrast Enhancement Materials
- Mask Blanks
- PBN Crucibles
- Photoresists / Developers
- Quartz Substrates & Wafers
- Liquid Underfill Materials
- Barrier Coat
- Pellicles
- Flexible Copper Laminate
- Epoxy Molding Compounds
- Adhesion Promoters

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