

Silicone Free Thermal Conductive Grease **GA690** (New Product)

As comparing with thermal conductive sheets, “GA690” has higher performance for helping dissipate the heat since it can be thinner by compressing. Also, “GA690” contains the isoparaffin solvent about 1.5% and it is soft and great use of applying to any substrates, such as a heat sink, and there are no worries about a contact failure or other bungles because it does not contain any silicone.

【Features】

- **High Thermal Conductivity** ...4.5W/m·K
- **Low Thermal Resistance** ...0.14 ·cm²/W or less (Load; 60 psi, Heat Value; 25W)
- **Silicone Free** ...No worry about low molecular siloxane that may be the cause of the contact fault or any bungles since GA690 contains no silicone.
- **Solvent Contain** ...GA690 contains the solvent and it is soft and right consistency to apply any substrates.

【Application】 ·Heat conduction from electronic devices to housings and others.

【Example】 ·CPU for Server, PC, Game console and PDA.

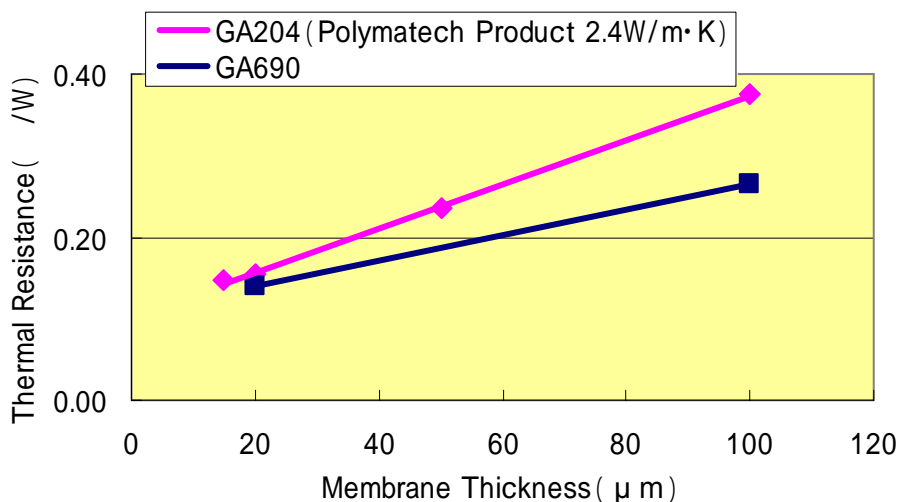
• **Physical Properties**

| | Unit | GA690 |
|----------------------------------|---------------------|---------------|
| Base Oil | - | Silicone Free |
| Color | - | Gray |
| Viscosity (25) ^{*1} | Pa·s | 350 |
| Specific Gravity | - | 2.55 |
| Thermal Conductivity | W/m·K | 4.5 |
| Thermal Resistance ^{*2} | ·cm ² /W | 0.14 |
| Volatile content (100) | % | 1.5 |
| Operating Range_ | | - 40 ~ 150 |

*1:10rpm, *2:Load; 60 psi, Heat Value; 25W



【Thermal Resistance】



Substrate Size ; 10mm
Heat Value ; 25W

• **Cycling Test**

[Measuring Method]

Measured with the thermal resistance device in Fig.1

Die Size : 10.19 × 21.01 × 0.56mm

Heat Value : 85W

Load : 15lbf

Heat Condition : One cycle = 12minutes, Total ; 900cycles

: Heater ON for 6minutes and Heater OFF for 6minutes

: Test temperature of Heater ON for 6minutes is about 80 ,
and test temperature of Heater OFF for 6minutes is about 25

Thermal Resistance $R1 = (T1-T2)/Q$

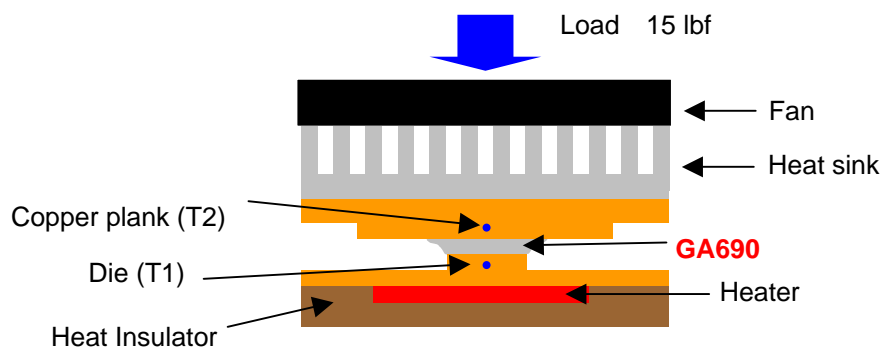
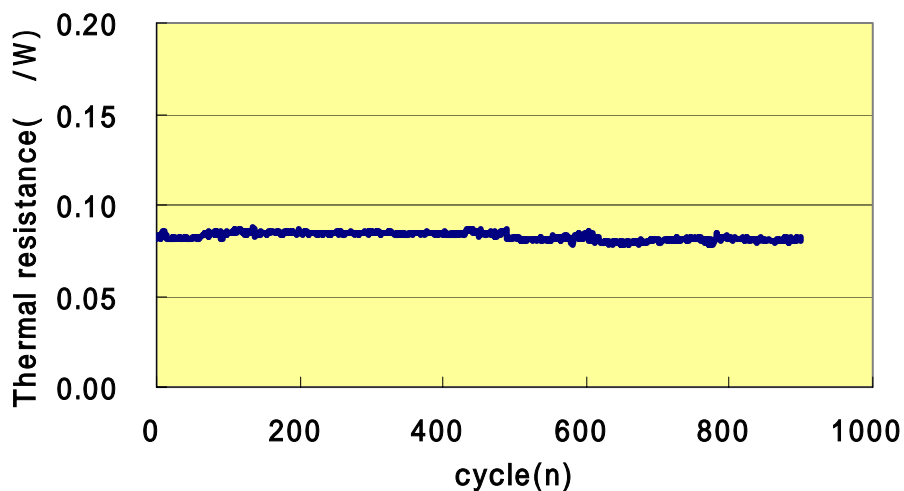


Fig. 1

[Result of evaluation]



• After 900 cycles, GA690 doesn't have the thermal resistance deterioration.

Note) • Values in the table and figure do not describe shipping standard.

• There is a possibility of changing the specification because this product is the development product.