

[Cat. No.] TK-1010-1

## Introduction

These days, electronic devices such as mobile devices and laptops are becoming thinner and smaller. Electronic devices also generate a lot of heat by operating various functions. The emitted heat degrades the function of the device and causes malfunction of surrounding devices and substrate degradation, adversely affecting electronic device performance. AccuTIM™ is a highly thermally conductive silicone adhesive with a thermal conductivity of 3.0 W/ m·K, which can solve the heating problem of electronic devices.

AccuTIM™ uses a special filler developed by the Bioneer to form a continuous network in the matrix and reduces the number of thermal resistance junctions to increase the performance of thermal conductivity. In addition, AccuTIM™ is based on silicone polymer, so it has excellent heat resistance, cold resistance, weather resistance and insulation properties compared to other organic polymers.

## Application

- AccuTIM™ can be used for bonding various electronic materials that require thermal conductivity (LED, quartz vibrator, piezoelectric element, tantalum capacitor) and as a heat dissipation adhesive for batteries.
- AccuTIM™ is used for heat dissipation bonding to electric vehicles, secondary batteries, ESS (Energy Storage System) and power semiconductors, enabling electronic devices to function stably.
- AccuTIM™ can be applied to electronic assemblies in various industries that require heat dissipation, such as the automobile industry, energy facilities, medical equipment, communications, and aerospace.

## Features & Benefits

- AccuTIM™ is a mixture of special fillers developed by the Bioneer and has a high thermal conductivity of 3.0 W/m·K. AccuTIM™ is a paste, and it is easy to apply to various types of heating elements such as large spaces between heat sources and heat sources or uneven areas.
- AccuTIM™ can be cured at room temperature, and can be cured in a short time by heating at a low temperature of 60°C.
- AccuTIM™ is a silicone material that is more resistant to blue and UV rays than conventional epoxies, and is highly resistant to heat and moisture.
- AccuTIM™ can be stored for a long time because the major material and hardener are separated by using a special container. This product is convenient to use because the base material and hardener are automatically mixed.

## Components

| Cat. No.          | TK-1010-1 |
|-------------------|-----------|
| TK-1010-1, A part | 14ml      |
| TK-1010-1, A part | 14ml      |
| Nozzle            | 3ea       |
| Blade             | 1ea       |

## Specifications

| TK-1010-1                         |                                                |
|-----------------------------------|------------------------------------------------|
| Curing method                     | 2-component Room Temperature Vulcanizing (RTV) |
| Before Curing                     |                                                |
| Apperance                         | A Part & B Part : Brown Paste                  |
| Viscosity                         | A Part : 30,000 cps<br>B Part : 30,000 cps     |
| Mixture ratio                     | 100 : 100                                      |
| Tack free time                    | 3 hr(Room Temperature)                         |
| Standard curing conditions        | Room temperature x 24hr<br>60°C x 1 hr         |
| After Curing                      |                                                |
| Thermal conductivity              | 3.0 W/m · k                                    |
| Tensile strength<br>(25°C x 4 hr) | 32.43 Psi / 0.22 MPa                           |

## Storage

- Keep at room temperature and store in well ventilated place.
- Store in designated containers only.
- Refrigerate after opening.

## Precautions

- It is recommended to use it as soon as possible after opening.
- Keep away from heat, hot surface, sparks, flames and other sources of ignition.
- Flammable hydrogen gas can also be generated.
- Avoid contact with water, alcohol, acid, basic or oxidizing substances.
- After use, dispose of contents/container according to the material safety data sheet (MSDS).
- When reusing the product, use a new nozzle included with the product.

## Online Resources



Korean



English

Visit our product page for additional information and protocols

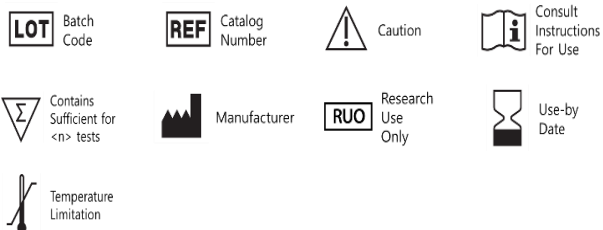
## Ordering Information

| Description                                     | Cat. No.  |
|-------------------------------------------------|-----------|
| AccuTIM™ Thermally Conductive Silicone Adhesive | TK-1010-1 |

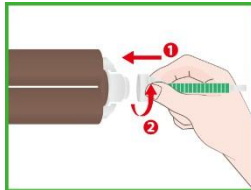
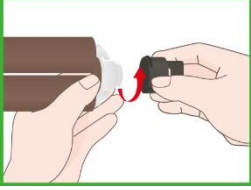
## Notice

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## Explanation of Symbols



## Experimental Procedures

| Steps |                                                                                                                             | Procedure Details                                                                                                                                                                                                                                          |
|-------|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     |  <p><b>Preparation</b></p>                 | 1. Preparation of AccuTIM™                                                                                                                                                                                                                                 |
| 2     |  <p><b>Attach the nozzle</b></p>           | 2. Turn open the grey cap on the product and attach the nozzle to the opening. The nozzle is enclosed in the package.<br>* <b>Note:</b> Do not throw away the cap.                                                                                         |
| 3     |  <p><b>Apply to the surface</b></p>      | 3. Make clean the surface of (A) which needs heat dissipation. Dust must be removed in particular.<br>4. Apply AccuTIM™ to the surface (A).                                                                                                                |
| 4     |  <p><b>Discard the nozzle</b></p>        | 5. After using the product, discard the nozzle and remove the residue on the connection. Cap the opening with the grey stopper.<br>* <b>Note:</b> The nozzle is disposable. Do not reuse it.<br>6. Store the product refrigerated once it is opened.       |
| 5     |  <p><b>Spread, Attach and Curing</b></p> | 7. Use a spatula to spread evenly over the entire surface.<br>8. Then attach the surface ( B ) to ( A ).<br>9. Adhesive curing takes 24 hours at room temperature or 60 minutes at 60 degrees Celsius. And it takes about a week for its full performance. |