

Key Features and Benefits

- Excellent thermal conductivity
- One-part heat-cured for easy application
- No by-products released during the curing process
- Superior high and low temperatures resistance, excellent weatherability and dielectric properties
- Good thixotropy and adhesion before curing, low contact thermal resistance, non-flowing, soft and low-stress after curing with no exudation
- Reworkable after use

Description

PAKCOOL® TC-9140-T is a reworkable, one-part, addition-cure, heat-cured liquid thermal gap filler. In its uncured state, it is a liquid paste that can be applied using automated dispensing, screen printing, and other methods, providing excellent contact between the heat-generating surface and the heatsink. After high-temperature curing, it forms a soft gel with minimal stress and superior stability. This product overcomes the long curing times of moisture-cured products while maintaining the low stress and reworkability of non-curing thermal greases or pastes, facilitating maintenance and repair. It offers easier application, lower contact thermal resistance, and better performance for uneven and large gaps than traditional thermal pads.

In addition, the product boasts high thermal conductivity, excellent insulation properties, and the ability to fill large gaps, making it suitable for various electronic devices requiring efficient thermal management.

Applications

- Power modules
- Integrated circuits
- Power supplies
- Integrated circuits
- Automotive Electronics
- Communication devices
- Computers and Accessories

Method of use

- Ensure that component surfaces are clean before applying the adhesive.
- Wear protective eyewear and gloves during use. Ensure the working environment is well-ventilated.
- This product may not solidify or completely solidify when exposed to some substances, such as sulfur, phosphorus, or nitrogen compounds and polysulfone, polysulfide, polyurethane, substances containing amides and amines, tin, arsenic, antimony, selenium, and tellurium, unsaturated hydrocarbons and plasticizers

Technical Parameters

| Typical Properties | TC-9140-T | Test Methods |
|---------------------------------|-----------------------|---------------|
| Color | White | Visual |
| Viscosity (cP) | 2,000,000±1,000,000 | ASTM D2196-15 |
| Thermal Conductivity (W/m·K) | 4.0 | ASTM D5470 |
| Density (g/cm ³) | 3.20±0.30 | ASTM D792 |
| Hardness (Shore OO) | 35±25 | ASTM D2240 |
| Dielectric Strength (kV/mm) | ≥8 | ASTM D149 |
| Volume Resistivity (Ω·cm) | ≥1.0x10 ¹² | ASTM D257 |
| Shelf Life (@≤25°C) | <6 months | -- |
| Continuous Use Temperature (°C) | -50~+200 | -- |

Note: Data is for guidance only and should not be used as product specifications.

Storage & Logistics

- Available in 30mL, 55mL dispensing syringes, 330mL cartridges. Custom packaging options are also available based on customer requirements.
- This product is non-toxic and non-flammable, with a shelf life of approximately 6 months at room temperature. It may exhibit slight oil separation before use, which typically does not affect performance. The product should be stored horizontally and used within 3 months if possible. Additionally, low-temperature storage (below 0°C) can help mitigate oil separation. Depending on the size of the packaging, allow the product to warm to the usage environment for 2-8 hours or more before use.
- It can be transported as a general liquid chemical.

Precaution

- For more detailed information, please contact our sales and marketing department. They will be available to assist and answer any questions you may have.

The data of this specification are obtained under laboratory conditions. However, because of the difference of use environment, process and so on, it can not guarantee the correctness and applicability of the product in some usage and use. When using, be sure to test to confirm the product suitable for your purpose. If you have any problems in using this product, please contact our technical department. We will do our best to help you.