

Thermal Gel 21-335

Version TDS.21-335.V.A.0

Description

21-335 Series is Two-Part Thermal Gel with low viscosity, silicone putty thermal gap filler in which is cured in room temperature. It is designed to be used where large gap tolerances are present and low mechanical stress on delicate components are needed. It is ideal for filling variable gaps between multiple components and a common heat sink.

21-335 Series has a composition which yields superior thermal performance and super compliancy. It transfers little to no pressure between interfaces. Specialized rheology allows for easy flow under pressure. Its clear boundary after cure make it no mess problem when reworking.

Typical Properties

| Properties | 21-335 | Test Method | | |
|------------------------|---|----------------------------|-------------------------------------|--|
| Thermal | Thermal Conductivity (W/m-K) | 3.2 | ASTM D5470 | |
| | Thermal Resistance ($^{\circ}\text{C}\cdot\text{cm}^2/\text{W}$)@ 1mm | 3.05 | ASTM D5470 | |
| Physical | Color/ Part A | Green | Visual | |
| | Color/ Part B | Light grey | Visual | |
| | Before Cure | Viscosity as mixed (mPa-s) | 520,000 | Brookfield Viscometer TF Spindle @5rpm |
| | | | 500,000 | Brookfield Viscometer TF Spindle @20rpm |
| Cured | Mix Ratio | 1:1 | / | |
| | Color | Green | Visual | |
| | Tensile lap-shear strength (psi) | 18 | GB/T 7124-2008 | |
| | Density (g/cc) | 3.0 | ASTM D792 | |
| Electrical As Cured | Hardness (Shore OO) | 50 | ASTM D2240 | |
| | Breakdown Voltage(kV/mm) ¹ | >6 | ASTM D149 | |
| | Volume Resistivity (ohm-cm) | >10 ¹² | ASTM D257 | |
| | Dielectric Constant @10MHz | 4.9 | ASTM D150 | |
| | Operation Temperature Range($^{\circ}\text{C}$) | -40~150 | / | |
| Cure Schedule | Pot Life @ 25 $^{\circ}\text{C}$ (min) | 120 | Time for Viscosity to Double | |
| | Cure @ 25 $^{\circ}\text{C}$ (hrs) | 18 | Rheometer- Time to Read 90% Cure | |
| | Cure @ 100 $^{\circ}\text{C}$ (min) | 20 | | |

1. Ramp up speed 500V/s, leakage current 0.5mA

Attention: initial extruded 2 grams of material using a static mixer head may not be well mixed. The tooling/assembling time is <2 hours after dispensing and after that the larger force is needed to compressed the gel.

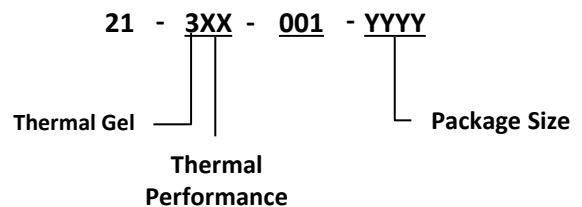
Benefits

- Extreme Low stress induced during assembly
- Easy for rework
- Easily dispensable
- Cured in room Temperature
- Electrically Isolating
- Low Thermal Resistance

Applications

- Smart device/phone
- Cooling components to chassis, frame, or other mating components
- Memory modules
- Home & Small Office Network
- Mass Storage Devices
- Automotive Electronics
- Telecommunication Hardware
- Radios
- LED Solid State Lighting
- Power Electronics
- Set Top Boxes
- Audio & Video Component
- IT infrastructure
- GPS navigation and other portable devices

Ordering Information



Standard Package

- 21-335-001-050M = Thermal Gel 21-335 in a 120 g (50cc) cartridge
- 21-335-001-400M = Thermal Gel 21-335 in a 1 kg (300cc) cartridge

Disclaimers

- The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the issuing date of this TDS. When using our products, no matter what type of equipment they might be used for, be sure to make a written agreement on the specifications with us in advance. The design and specifications in this TDS are subject to change without prior notice.
- Do not use the products beyond the specifications described in this TDS. This TDS explains the typical performance of the products as individual component. Before use, check and evaluate their operations when installed in your products.
- Install the following systems for a failsafe design to ensure safety if these products are to be used in equipment where a defect in these products may cause the loss of human life or other significant damage, such as damage to vehicles (automobile, train, vessel), traffic lights, medical equipment, aerospace equipment, electric heating appliances, combustion/gas equipment, rotating equipment, and disaster/crime prevention equipment.

