

## TH855-5LB

### **Silicone Thermal Putty**

### Description

TH855-5LB is a dispensable silicone based thermally conductive putty. It has high extrusion rate, low bleed and non-flowable. It is designed for very good thermal conduction with high electrical insulation.

#### **Features**

- High thermal conductivity
- High compressible
- Dispensable
- Non electrical conductive
- Low outgassing
- Low resin bleed

### **Applications**

Dispensable thermally conductive silicone based putty for use as thermal interface material for electronic component.

| Properties                           | Typical Value           | Unit                 | Test Method |
|--------------------------------------|-------------------------|----------------------|-------------|
| Color                                | Light grey              | -                    | PEN 10      |
| Viscosity, 25°C                      | 546,500                 | cР                   | PEN 144     |
| Thixotropic index                    | 3.2                     | -                    | PEN 144     |
| Flow test, 45° incline               | No flow                 | mm                   | PEN 15      |
| Specific gravity                     | 3.25                    | g/cm³                | PEN 14      |
| Extrusion rate                       |                         |                      |             |
| 1) At 50psi                          | 0.38                    | g/min                | PEN 107     |
| Flow test, 45° incline               | No flow                 | mm                   | PEN 15      |
| Thermal conductivity                 | 5.0                     | W/mK                 | ASTM D5470  |
| Thermal resistance                   | 1.9                     | K.cm <sup>2</sup> /W | ASTM D5470  |
| Volume resistivity                   | >1.0 x 10 <sup>14</sup> | Ohm-cm               | ASTM D257   |
| Volatile content @ 150°C             | 0.06                    | %                    | PEN 92      |
| Operating temperature                | -40 to 200              | °C                   | PEN 92      |
| Bleed test, 100°C/100hrs, blot width | ≤5.0                    | mm                   | PEN 99      |
| Flammability                         | V-0                     | -                    | PEN 55      |

<sup>\*</sup> The values above are tested based on batch to batch basis. These values are not used as a basis for preparing specifications.

### **Guideline of Use**

- 1) Wear rubber glove when handling the silicone putty.
- 2) Scoop a quantity of the silicone putty from the container using a stainless steel spatula.
- 3) Work and knead the putty around electronic part and circuit by hand.
- 4) This product may be dispensed by pneumatic dispenser or other dispensing equipment with an appropriate needle. Increasing the dispensing temperature (eg. 60°C) can ease the dispensing process. The user is responsible to determine the suitability of the product for all intended uses.
- 5) Wipe off any excess putty with a piece of dry cloth. Further cleaning of residues may be achieved by wiping with cloth wetted with isopropanol.

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<sup>\*</sup> PEN is referring to Penchem's standard test method; ASTM is for test reference only.

<sup>\*</sup> Viscosity and thixotropic index were measured by Rheometer, MCR72, PP25/S, 0.5mm gap, 5(1/s), 25.0°C

<sup>\*</sup> Extrusion rate was measured by using needle size:GA15, 10ml EFD syringe, 25.0±3°C

<sup>\*</sup> Oil bleeding was measured after 24hours at 100°C, 1.0±0.05g on filter paper.

<sup>\*</sup> PEN 55 - UL94 as reference test method



# TH855-5LB

### **Silicone Thermal Putty**

### **Features**

This product has 18 months of shelf life from date of manufacturing, unless otherwise specified, when stored at room temperature in the original and unopened container.

### **Applications**

- 10ml syringe
- 30ml syringe
- 500g plastic jar

Other packaging enquiry, please contact our sales department.

### **Environment, Health & Safety**

This product is intended for industrial use only. For more safety information, please refer to Product Safety Data Sheet (SDS).

### **General Information**

 All right reserved. This information in this document is subjected to change without notice.

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