

### Description

TH855-5 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 electrically conductive
- Low outgassing

### 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	-	PEN10
Viscosity, 25°C, 0.5s <sup>-1</sup>	2.0 x 10 <sup>6</sup>	cP	PEN144
Viscosity, 25°C, 17s <sup>-1</sup>	350,000	cP	PEN144
Flow test, 45° incline	No flow	mm	PEN15
Density	3.25	g/cm <sup>3</sup>	PEN61
Extrusion rate, 25°C			
• 50psi with GA15	0.50	g/min	PEN107
• 60psi with GA15	0.73	g/min	PEN107
• 70psi with GA15	0.89	g/min	PEN107
• 20psi without needle	2.80	g/min	PEN107
• 90psi without needle	16.20	g/min	PEN107
Thermal conductivity	4.4	W/mK	PEN148 (ASTM D5470)
Thermal resistance	1.39	K.cm <sup>2</sup> /W	PEN148 (ASTM D5470)
Volume resistivity	>1.0 x 10 <sup>14</sup>	Ohm-cm	ASTM D257
Volatile content @ 150°C	0.06	%	PEN92
Operating temperature	-40 to 200	°C	PEN92
Bleed test, blot width	9.0	mm	PEN99

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

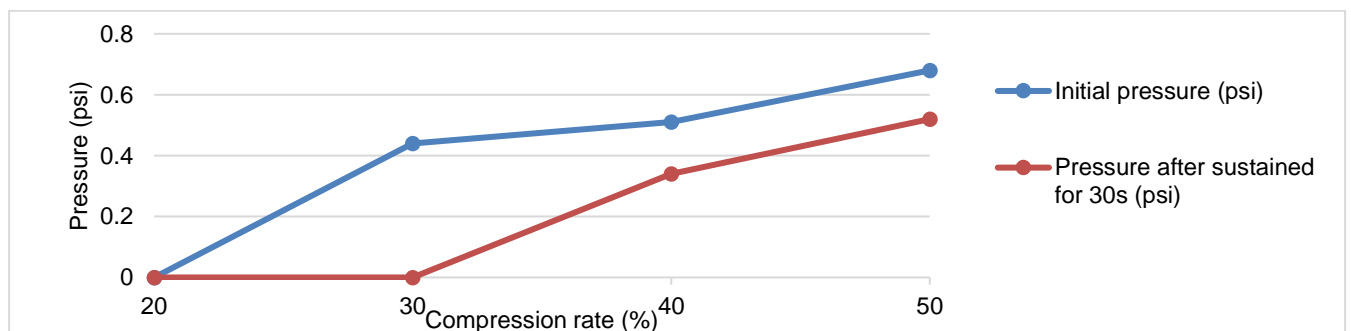
\* PEN is referring to Penchem's standard test method; ASTM is for test reference only.

\* Viscosity was measured by Rheometer MCR72, PP25/S, 0.057mm gap, 0.5(1/s) and 17(1/s), 25.0°C.

\* PEN148 - Thermal conductivity and thermal resistance were measured by TIM1300 (ASTM D5470), at 100kPa contact pressure and 0.60mm thick, at 30°C.

\* Bleed test was measured after 24hours at 100°C, 1.0±0.05g on filter paper.

### Compression Deflection



Compression rate (%)	20	30	40	50
Initial pressure (psi)	0.00	0.44	0.51	0.68
Pressure after sustained for 30s (psi)	0.00	0.00	0.34	0.52

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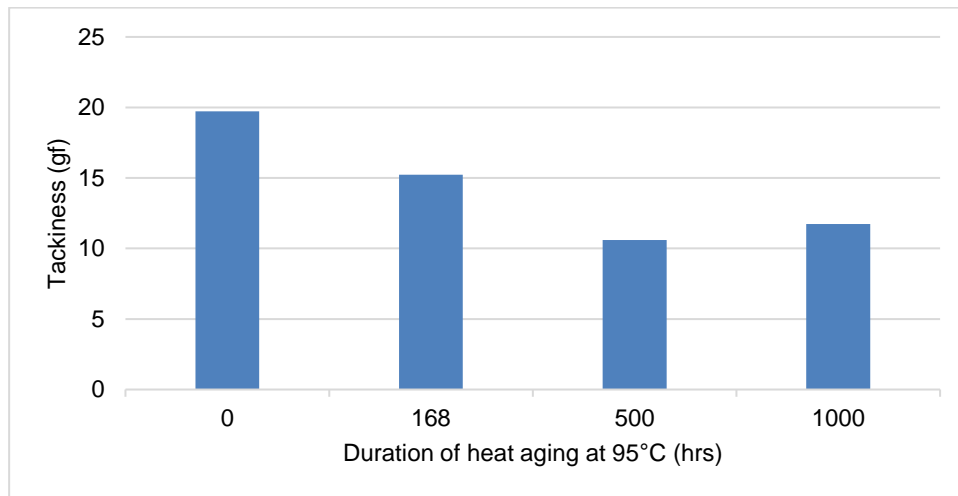
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### Tackiness after Heat Aging at 95°C



Test Method : 180 ° Peel Test; 0.200 +/- 0.005g;  
Substrate : Kapton film (0.6cm width) to glass

### 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.

### Storage & Shelf Life

This product has 9 months of shelf life from date of manufacturing, unless otherwise specified, when stored at room temperature in the original and unopened container.

### Packaging

- 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.

