

### 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 electrical 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	-	PEN 10
Viscosity, 25°C	566,480	cP	PEN 144
Thixotropic index	4.0	-	PEN 144
Flow test, 45° incline	No flow	mm	PEN 15
Specific gravity	3.25	g/cm <sup>3</sup>	PEN 14
Extrusion rate			
1) At 50psi	0.51	g/min	PEN 107
2) At 60psi	0.73	g/min	PEN 107
3) At 70psi	0.89	g/min	PEN 107
Flow test, 45° incline	No flow	mm	PEN 15
Thermal conductivity	5.0	W/mK	ASTM D5470-17
Thermal contact resistance	3.0	K.cm <sup>2</sup> /W	ASTM D5470-17
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, blot width	9.0	mm	PEN 99

\* 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.

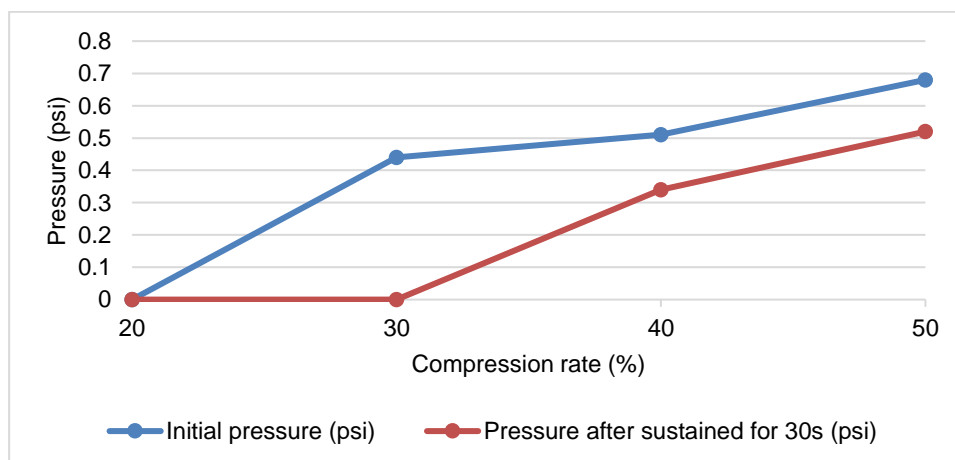
\* Viscosity and thixotropic index were measured by Rheometer, MCR72, PP25/S, 0.5mm gap, 10(1/s), 25.0°C

\* Thermal conductivity and contact resistance were measured by TIM1300, ASTM D5470-17, 1.0mm thick, 100kPa contact pressure.

\* Extrusion rate was measured by using needle size:GA15, 10ml EFD syringe, 25.0°C

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

### Compression Deflection



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**Penchem Technologies Sdn Bhd** (767120-A),

Address: 1015, Jalan Perindustrian Bukit Minyak 7, Kawasan Perindustrian Bukit Minyak, Mk.13, 14100 Penang, Malaysia.

Tel: +604-501 5976, 77, 78

Email: [enquiry@penchem.com](mailto:enquiry@penchem.com)

Fax: +604-501 5979

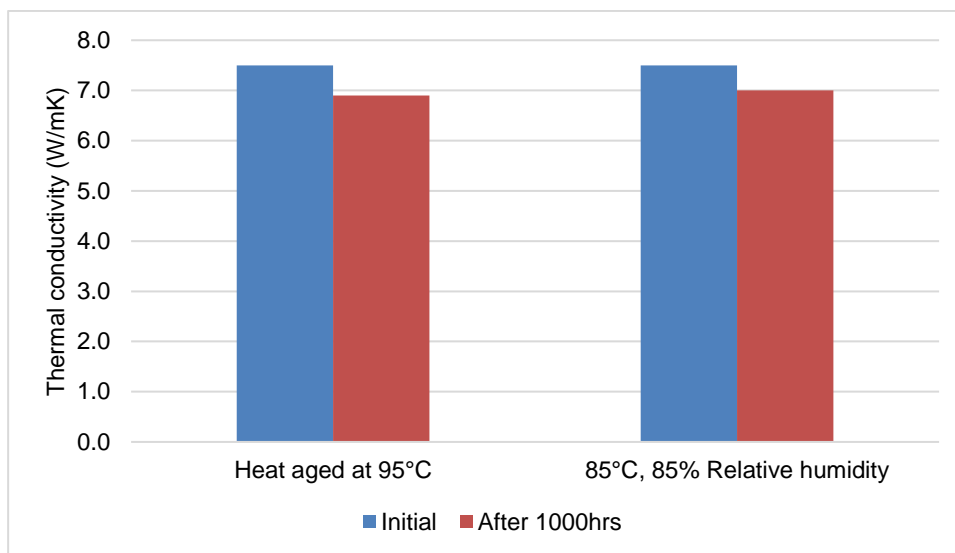
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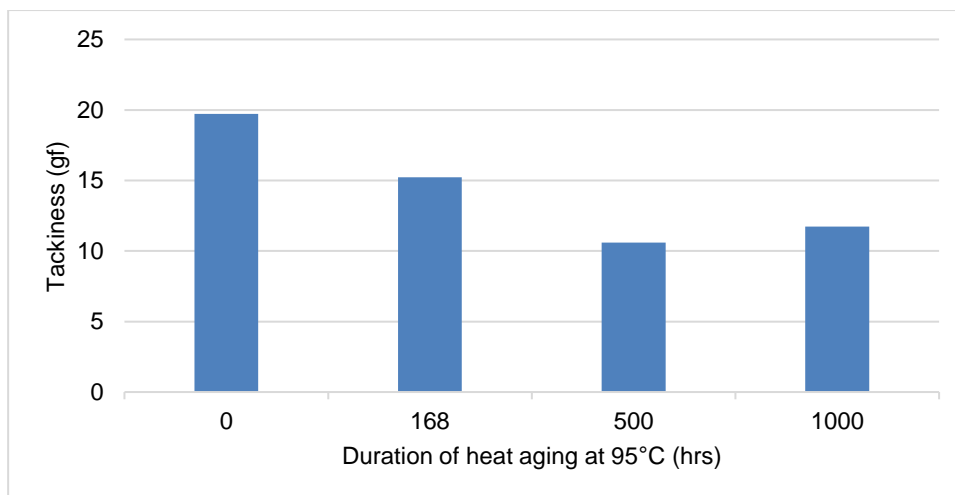
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Compression rate (%)	20	30	40	50
Initial pressure (psi)	0.00	0.44	0.51	0.68
Pressure after sustained for 30s (psi)	0.00	0.00	0.34	0.52

### Thermal Conductivity after Heat Aging (95°C) and Damp Heat Test (85°C, 85% RH) for 1000hrs



### 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

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Tel: +604-501 5976, 77, 78

Email: [enquiry@penchem.com](mailto:enquiry@penchem.com)

Fax: +604-501 5979

Website: [www.penchem.com](http://www.penchem.com)



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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.

### 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.

### Environment, Health & Safety

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

### Applications

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

Other packaging enquiry, please contact our sales department.

### General Information

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

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14100 Penang, Malaysia.  
Tel: +604-501 5976, 77, 78 Fax: +604-501 5979  
Email: [enquiry@penchem.com](mailto:enquiry@penchem.com) Website: [www.penchem.com](http://www.penchem.com)



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