

## SnapSil™ TN3085

### Description

SnapSil TN3085 is a one-component, thermally conductive, low volatile siloxane, silicone adhesive that cures at room temperature upon exposure to atmospheric moisture. It cures to form an elastic, flame retardant silicone rubber and exhibits primerless adhesion to many substrates.

### Key Features and Benefits

- Fast tack-free time
- Low volatility
- Non-corrosive to most metals
- Primerless adhesion to many substrates
- Low odor cure: releases an alcohol vapor during cure
- Thermally conductive
- Flame retardant (UL94 V-0, File No. E56745)

### Typical Physical Properties 6249)

(JIS K

Property	Unit	Value
<b>Uncured Properties</b>		
Appearance		Non-flowable paste,gray,white
Tack-free Time (23 °C) min		7
<b>Cured Properties (3 days at 23 °C, 50% RH)</b>		
Appearance		Gray, white rubber
Density (23 °C)	g/cm <sup>3</sup>	1.63
Hardness (Type A)		46
Tensile Strength	MPa	2.3
Elongation	%	150
Adhesion Strength <sup>(1)</sup>	MPa	1.3
Volatile Siloxane <sup>(2)</sup> (D <sub>4</sub> -D <sub>10</sub> )	wt%	0.01
Thermal Conductivity <sup>(3)</sup>	W/m·K	0.7
Volume Resistivity	Ω·cm	4.0x10 <sup>14</sup>
Dielectric Strength	kV/mm	23
Dielectric Constant (60Hz)		4.0

Typical properties are average data and should not be used as or to develop product specifications.

<sup>(1)</sup> Aluminum Lap Shear

<sup>(2)</sup> In-house test method

<sup>(3)</sup> Hot wire method

**Typical Properties, continued**

<u>Property</u>	<u>Unit</u>	<u>Value</u>
Dissipation Factor (60Hz)		0.04
Impurities <sup>(2)</sup> ppm	Na+	< 2
	K+	< 2
	Cl-	< 2

Typical properties are average data and should not be used as or to develop product specifications.

<sup>(1)</sup> Aluminum Lap Shear

<sup>(2)</sup> In-house test method

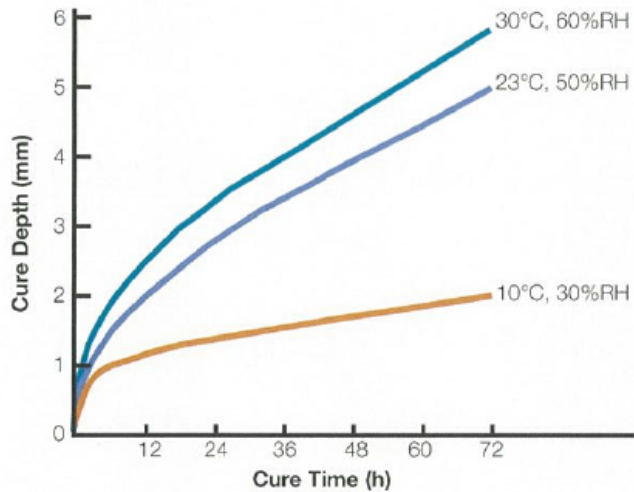
<sup>(3)</sup> Hot wire method

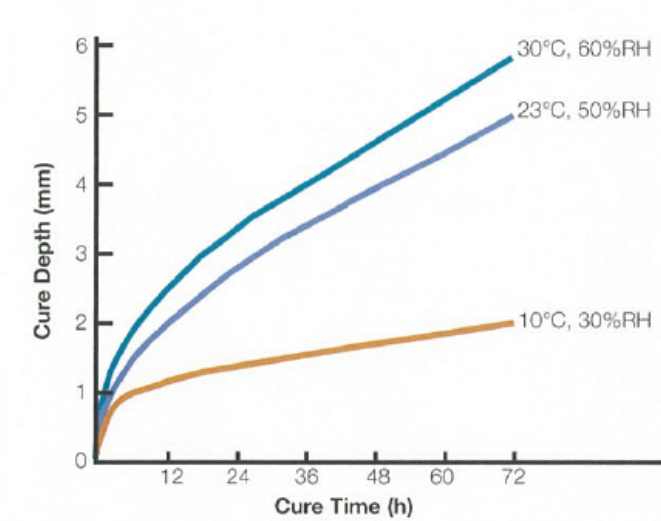
**Potential Applications**

- Bonding in power supplies
- Thermal adhesive between electronic components and heat sinks
- Securing PCBs to substrates

**Cure Profile**

SnapSil TN3085 silicone adhesive cures upon exposure to atmospheric moisture, and its cure speed is affected by humidity and temperature. The material begins to cure from the sections that are exposed to the atmosphere and, therefore, greater time is required for the cure to extend to deeper sections. The cure depth of SnapSil TN3085 silicone adhesive at various combinations of humidity and temperature are provided below.





Note: Test results. Actual data may vary.

### Adhesion Performance

SnapSil TN3085 silicone adhesive adheres to a wide variety of substrates used in electronic components. The following matrix depicts adhesion performance to typical substrates. However, actual performance may vary depending on the substrate manufacturer or grade.

Substrate	
Aluminum	O
Copper	O
Steel	O
Acrylic resin	O
Phenolic resin	O
Epoxy resin	O
PET	O
ABS	O
PBT	O
PPS	O
PVC	O
Nylon	O
Polycarbonate	O
PPO	O
Polyethylene	X
Polytetrafluoroethylene	X
Glass	O

Note: Test results. Actual data may vary.

O: Good (cohesive failure)

X: Adhesive failure

### General Considerations for Use

While the typical operating temperature for silicone materials ranges from -45°C to 200°C, the long-term maintenance of its initial properties is dependent upon design related stress considerations, substrate materials, frequency of thermal cycles, and other factors.

### Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

### Product Safety, Handling and Storage

Customers should review the latest Safety Data Sheet (SDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, emergency service contact information, and any special storage conditions required for safety. Momentive Performance Materials (MPM) maintains an around-the-clock emergency service for its products. SDS are available at [www.momentive.com](http://www.momentive.com) or, upon request, from any MPM representative. For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center. Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

### Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

### Contact Information

Email

[commercial.services@momentive.com](mailto:commercial.services@momentive.com)

### Telephone

<b>Americas</b>	<b>Latin America</b>	<b>EMEAI- Europe, Middle East, Africa &amp; India</b>	<b>ASIA PACIFIC</b>
+1 800 295 2392	<b>Brazil</b>	<b>Europe</b>	<b>China</b>
Toll free*	+55 11 4534 9650	+390510924300	800 820 0202
+704 805 6946	Direct Number	Direct number	Toll free
Direct Number			+86 21 3860 4892
			Direct number
*All American countries	<b>Mexico</b>	<b>India, Middle East &amp; Africa</b>	<b>Japan</b>
	+52 55 2169 7670	+ 91 44 71212207	+81 3 5544 3111
	Direct Number	Direct number*	Direct number

**\*All Middle Eastern countries, Africa, India, Korea**  
**+82 2 6201 4600**

For literature and technical assistance, visit our website at: [www.momentive.com](http://www.momentive.com)

**DISCLAIMER:**

**THE MATERIALS, PRODUCTS AND SERVICES OF MOMENTIVE PERFORMANCE MATERIALS INC. AND ITS SUBSIDIARIES AND AFFILIATES (COLLECTIVELY “SUPPLIER”), ARE SOLD SUBJECT TO SUPPLIER’S STANDARD CONDITIONS OF SALE, WHICH ARE INCLUDED IN THE APPLICABLE DISTRIBUTOR OR OTHER SALES AGREEMENT, PRINTED ON THE BACK OF ORDER ACKNOWLEDGMENTS AND INVOICES, AND AVAILABLE UPON REQUEST. ALTHOUGH ANY INFORMATION, RECOMMENDATIONS, OR ADVICE CONTAINED HEREIN IS GIVEN IN GOOD FAITH, SUPPLIER MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (i) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING ITS PRODUCTS, MATERIALS, SERVICES, RECOMMENDATIONS OR ADVICE. EXCEPT AS PROVIDED IN SUPPLIER’S STANDARD CONDITIONS OF SALE, SUPPLIER AND ITS REPRESENTATIVES SHALL IN NO EVENT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS OR SERVICES DESCRIBED HEREIN.** Each user bears full responsibility for making its own determination as to the suitability of Supplier’s materials, services, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating Supplier’s products, materials, or services will be safe and suitable for use under end-use conditions. Nothing in this or any other document, nor any oral recommendation or advice, shall be deemed to alter, vary, supersede, or waive any provision of Supplier’s standard Conditions of Sale or this Disclaimer, unless any such modification is specifically agreed to in a writing signed by Supplier. No statement contained herein concerning a possible or suggested use of any material, product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Supplier covering such use or design, or as a recommendation for the use of such material, product, service or design in the infringement of any patent or other intellectual property right.

\*SnapSil™ is a trademark of Momentive Performance Materials Inc.

The use of the “™” symbol designates registered or unregistered trademarks of Momentive Performance Materials Inc. or its affiliated companies. Momentive and the Momentive logo are trademarks of Momentive Performance Materials Inc.