



SNAPSIL* TN3085

ENGINEERED MATERIALS - CONSUMER ELECTRONICS



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 Typical Benefits

- fast tack-free time
- flame retardant (UL94 V-0, File Number E56745)
- low volatility
- non-corrosive to most metals
- primerless adhesion to many substrates
- low odor cure: releases an alcohol vapor during cure
- thermally conductive

Typical Physical Properties		(JIS K 6249)
Uncured Properties		
Appearance		Non-flowable paste, gray, white
Tack-free Time (23°C)	min	7
Cured Properties (3 days @ 23°C, 50% RH)		
Appearance		Gray, white rubber
Density (23°C)	g/cm ³	1.63
Hardness (Type A)		46
Tensile Strength	MPa	2.3
Elongation	%	150
Adhesion Strength ⁽¹⁾	MPa	1.3
Volatile Siloxane ⁽²⁾ (D ₃ -D ₁₀)	wt%	0.01
Thermal Conductivity (W/mK)		0.7
Volume Resistivity	Ω·cm	4.0x10 ¹⁴
Dielectric Strength	kV/mm	23
Dielectric Constant (60Hz)		4.0
Dissipation Factor (60Hz)		0.04
Impurities ⁽²⁾ ppm	Na ⁺	<2
	K ⁺	<2
	Cl ⁻	<2

(1) Glass lap shear, 7 days @ 23°C, 50%RH

(2) In-house test method

Typical property data values should not be used as specifications.

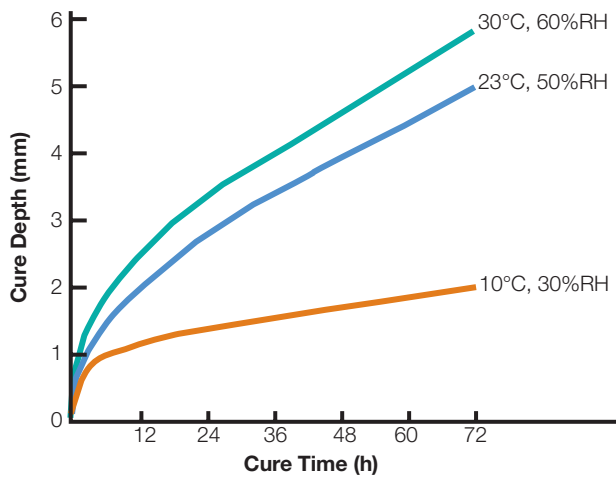
SNAPSIL* TN3085 flame retardant silicone adhesive

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.



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

O: Good (cohesive failure)
X: Adhesive failure

Packaging

- 160g tube
- 333ml cartridge

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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 considering the use of this product should review the latest Material Safety Data Sheet and label for product safety information, handling instructions, personal protective equipment if necessary, and any special storage conditions required. Material Safety Data Sheets are available at www.momentive.com or, upon request, from any Momentive Performance Materials representative. Use of other materials in conjunction with Momentive Performance Materials products 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.

Emergency Service

Momentive Performance Materials maintains an around-the-clock emergency service for its products. The American Chemistry Council (CHEMTREC) and CareChem24 International also maintain an around-the-clock emergency service for all chemical products:

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Middle East,		
All countries, except Israel	+518.233.2500	+961.3.487.287 (Lebanon)
Middle East, Israel	+518.233.2500	+44.(0)208.762.8322 (UK)
Latin America, Asia/Pacific,	+518.233.2500	CHEMTREC: +1-703.527.3887 (collect)
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At sea	Radio U.S. Coast Guard, which can directly contact Momentive Performance Materials at 518.233.2500 or CHEMTREC at 800.424.9300.	

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