

# SNAPSIL™ TN5025 HIGH STRENGTH, NON-CORROSIVE SILICONE ADHESIVE SEALANT

## Product Description

SNAPSIL TN5025 is a one component, low volatile siloxane, condensation cure silicone adhesive that cures at room temperature with exposure to atmospheric moisture. It forms an elastic silicone rubber.

## Key Features and Typical Benefits

- High strength and excellent adhesion to many substrates
- Small shrinkage value at cure time
- Low volatility
- Non-corrosive to metals; meets MIL-A-46146B corrosion test

## Potential Applications

- Insulating adhesive seal and fixing for electrical and electronic parts
- Waterproof sealant for electrical, electronic and communication equipment
- General adhesive for metal, glass, plastics, etc.

## Typical Physical Properties (JIS K 6249)

UNCURED PROPERTIES (23°C, 50% RH)		
Appearance		Thixotropic paste, Black
Tack-free Time	min	30
CURED PROPERTIES (7days @ 23°C, 50% RH)		
Appearance		Elastic rubber, Black
Density (23°C)	g/cm <sup>3</sup>	1.20
Hardness (Type A)		50
Tensile strength	MPa	4.5
Elongation	%	300
Lap Shear Strength(AL)	MPa	3.0
Volatile siloxane* (D <sub>3</sub> -D <sub>10</sub> )	wt%	0.01
Volume resistivity	MΩ·m	8.0x10 <sup>7</sup>
Dielectric strength	kV/mm	25
Dielectric constant (60Hz)		3.3
Dissipation factor (60Hz)		0.01

\*In-house test method.

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

**Adhesion Performance**

Cure condition; 7days @ 23°C, 50% RH. Lab data; actual results may vary.

SUBSTRATE	ADHESIVE STRENGTH*1 [MPa]
Aluminum	3.0
Copper	3.5
Nylon-6,6	2.7
Polycarbonate	0.6
PBT	2.5
PPS	2.5

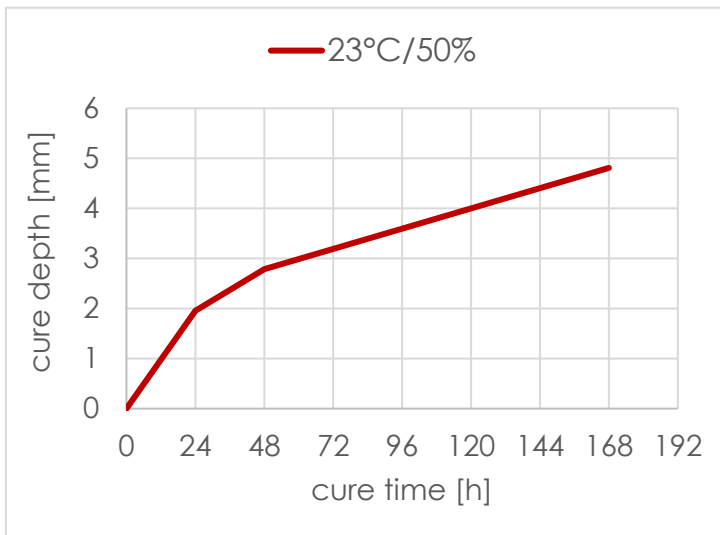
\*1 Lap shear test, bond line thickness 1mm

ADHESION*2	SUBSTRATE
Excellent (cohesive failure)	PA6, PA66, PBT, Glass
Good (cohesive failure)	Aluminum, Die-cast aluminum, Stainless steel, Steel, Copper, Phenol resin, Epoxy resin, ABS resin, Acrylic resin, PPS
Poor (adhesive failure)	PC, PPO, PET

\*2 Failure mode critically depends on the specific substrate

**Cure Profile**

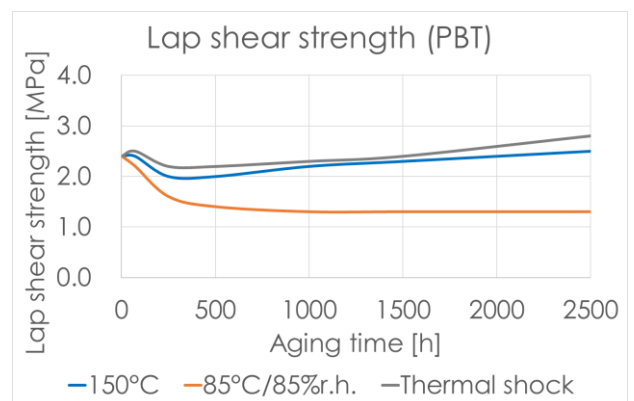
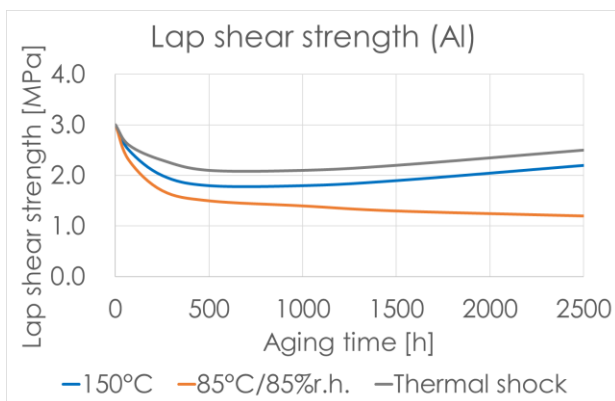
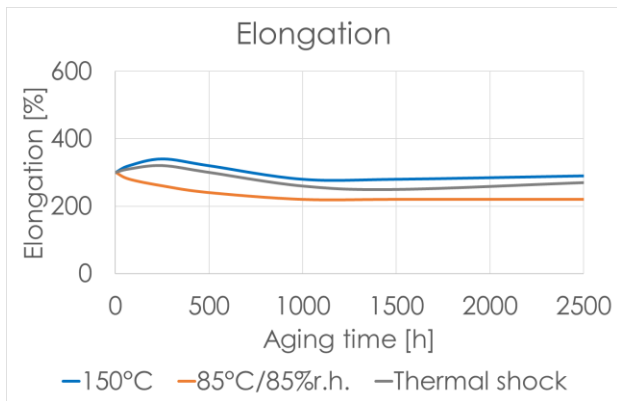
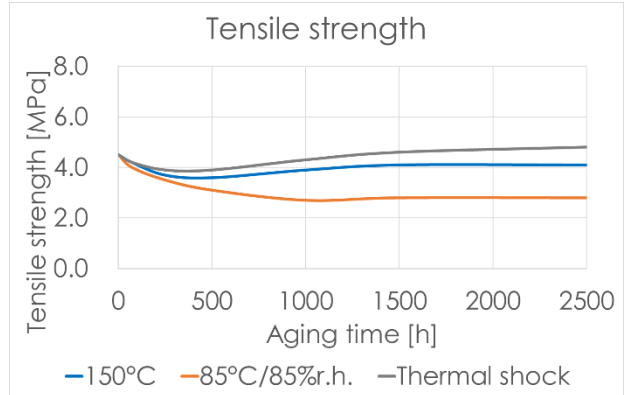
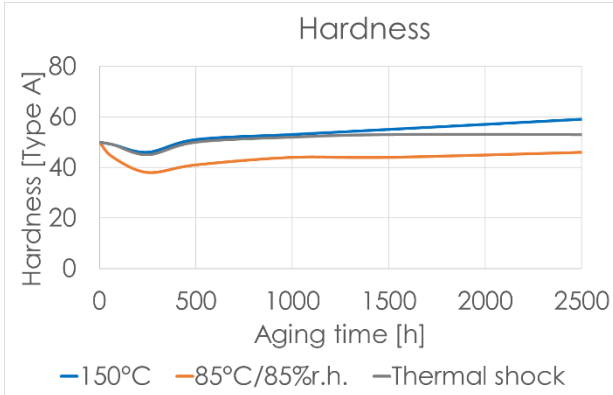
SNAPSIL TN5025 silicone adhesive cures upon exposure to atmospheric moisture, and its cure speed is affected by humidity and temperature. The material begins to cure from the sections that are exposed to the atmosphere and, therefore, greater time is required for the cure to extend to deeper sections. The cure depth of SNAPSIL TN5025 silicone adhesive for 24°C and 50% relative humidity is provided below. Increased temperature and/or moisture increases the cure speed.



Lab data; actual results may vary

## Durability

Lab data; actual results may vary



Thermal shock; 150°C/30min ⇌ -40°C/30min = 1 cycle (1 hr)

### 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

- Thoroughly clean the substrate with a suitable solvent and dry completely before applying.
- Wear eye protection and protective gloves at all times when working with this product.
- Maintain adequate ventilation in the work place at all times.
- We recommend that you use all after opening.
- Store in a cool, dry place out of direct sunlight.
- Keep out of the reach of children.

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 application(s).

### Contact Information

Email

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

#### Telephone

##### Americas

+1 800 295 2392  
Toll free\*  
+704 805 6946  
Direct Number

##### Latin America

**Brazil**  
+55 11 4534 9650  
Direct Number

##### EMEAI- Europe, Middle East, Africa & India

**Europe**  
+390510924300  
Direct number

##### ASIA PACIFIC

**China**  
800 820 0202  
Toll free  
+86 21 3860 4892  
Direct number

\*All American countries

**Mexico**  
+52 55 2169 7670  
Direct Number

**India, Middle East & Africa**  
+ 91 44 71212207  
Direct number\*

**Japan**  
+81 3 5544 3111  
Direct number

\*All Middle Eastern countries, Africa, India,

**Korea**  
+82 2 6201 4600

Pakistan, Bangladesh, Sri Lanka.

Direct number

South East Asia, Australia & New Zealand

+60 3 9206 1543

Direct number\*

\*South East Asia countries (Malaysia, Singapore, Thailand, Indonesia, Vietnam, Philippines, Cambodia, Myanmar / other countries located in Pacific region).

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.

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.



260 Hudson River Road Waterford,  
NY 12188 USA  
[momentive.com](http://momentive.com)

Copyright 2024 Momentive Performance Materials, Inc. All rights reserved.