

SnapSil™ TN3005

Description

SnapSil TN3005 is a one-component, low volatile siloxane, silicone adhesive sealant that cures at room temperature upon exposure to atmospheric moisture, and exhibits primerless adhesion to many substrates.

Key Features and Typical 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
- Flame retardant (UL94HB recognized, File No. E56745)

Typical Physical Properties (JIS K 6249)

| Property | Units | Value |
|---|-------------------|--|
| Uncured Properties (23 °C, 50% RH) | | |
| Appearance | | Non-flammable paste, clear, white, black |
| Tack-free Time | min | 7 |
| Cured Properties (3 days at 23 °C, 50% RH) | | |
| Appearance | | Elastic rubber, clear, white, black |
| Density (23 °C) | g/cm ³ | 1.04 |
| Hardness (Type A) | | 22 |
| Tensile Strength | MPa | 1.8 |
| Elongation | % | 330 |
| Adhesion Strength | MPa | 1.2 |
| Volatile Siloxane ⁽¹⁾ (D ₃ -D ₁₀) | wt% | 0.01 |
| Volume Resistivity | Ω·cm | 2.0 x 10 ¹⁵ |
| Dielectric Strength | kV/mm | 26 |

| | | |
|-------------------------------|-----|-------|
| Dielectric Constant (60Hz) | | 2.7 |
| Dissipation Factor (60Hz) | | 0.002 |
| Impurities ⁽¹⁾ ppm | Na+ | < 2 |
| | K+ | < 2 |
| | Cl- | < 2 |

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

⁽¹⁾ In-house test method.

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.

Adhesion Performance

SnapSil TN3005 silicone adhesive sealant 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 |
| Stainless 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 |

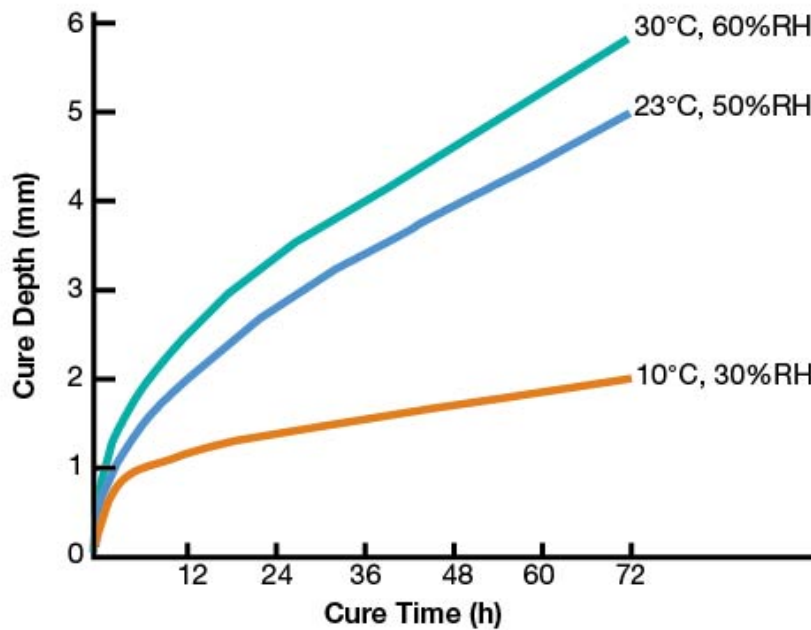
Note: Test results. Actual data may vary.

O: Good (cohesive failure)

X: Adhesive failure

Cure Profile

SnapSil TN3005 silicone adhesive sealant 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 TN3005 silicone adhesive sealant at various combination of humidity and temperature are provided below.



Note: Test results. Actual data may vary.

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 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

Telephone

| | | | |
|-------------------------|----------------------|---|---------------------|
| Americas | Latin America | EMEAI- Europe, Middle East, Africa & India | ASIA PACIFIC |
| +1 800 295 2392 | Brazil | Europe | China |
| 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 | Mexico | India, Middle East & Africa | Japan |
| | +52 55 2169 7670 | + 91 44 71212207 | +81 3 5544 3111 |
| | Direct Number | Direct number* | Direct number |
| | | *All Middle Eastern countries, Korea | |
| | | Africa, India, | +82 2 6201 4600 |

For literature and technical assistance, visit our website at: 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™ é uma marca registrada da 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.