



SNAPSIL* TN3705

ENGINEERED MATERIALS - CONSUMER ELECTRONICS





SnapSil TN3705 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

| Typical Physical Properties | | (JIS K 6249) | |
|---|-----------------|-------------------------------------|--|
| Uncured Properties | | | |
| Appearance | | Flowable, clear, white, black | |
| Viscosity (23°C) | Pa•s | 1.5 | |
| Tack-free Time (23°C) | min | 7 | |
| Cured Properties (3 days @ 23° | C, 50% RH) | | |
| Appearance | | Elastic rubber, clear, white, black | |
| Density (23°C) | g/cm³ | 1.01 | |
| Hardness (Type A) | | 13 | |
| Tensile Strength | MPa | 0.4 | |
| Elongation | % | 130 | |
| Adhesion Strength ⁽¹⁾ | MPa | 0.2 | |
| Volatile Siloxane ⁽²⁾ (D ₃ -D ₁₀) | wt% | 0.01 | |
| Volume Resistivity | Ω•cm | 2.0x10 ¹⁵ | |
| Dielectric Strength | kV/mm | 26 | |
| Dielectric Constant (60Hz) | | 2.7 | |
| Dissipation Factor (60Hz) | | 0.002 | |
| | Na ⁺ | <2 | |
| Impurities ⁽²⁾ ppm | 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* TN3705 fast cure silicone adhesive sealant

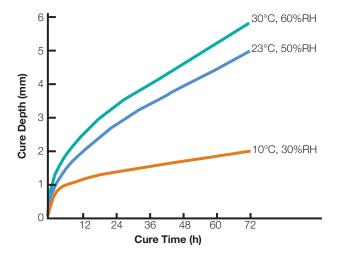


Potential Applications

- 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.

Cure Profile

SnapSil TN3705 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 TN3705 silicone adhesive sealant at various combinations of humidity and temperature are provided below.



, whose Performance

SnapSil TN3705 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 | 0 |
| Copper | 0 |
| Steel | 0 |
| Stainless Steel | 0 |
| Acrylic resin | 0 |
| Phenolic resin | 0 |
| Epoxy resin | 0 |
| PET | 0 |
| ABS | 0 |
| PBT | 0 |
| PPS | 0 |
| PVC | 0 |
| Nylon | 0 |
| Polycarbonate | 0 |
| PPO | 0 |
| Polyethylene | Х |
| Polytetrafluoroethylene | X |
| Glass | 0 |

O: Good (cohesive failure)

Packaging

- 100g tube
- 333ml cartridge
- 18kg pail

X: Adhesive failure

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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.

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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