

Product Data

Flame Retardant Silicone Adhesive TN3088

TN3088 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

- Fast tack-free time
- Flame retardant (UL V-0 certified: E-File320603)
- Low volatility
- Non-corrosive to metals
- Primerless adhesion to many substrates
- Low odor cure: releases an alcohol vapor during cure
- Thermally conductive

APPLICATIONS

- Bonding in power supplies, modules and PCB components.

TYPICAL PROPERTIES

UNCURED PROPERTIES		
Appearance		non-flowable white or dark gray paste
Tack-free Time (23°C)	min	10
CURED PROPERTIES (3days @ 23°C, 50% RH)		
Appearance		White or Dark Gray rubber
Density (23°C)	g/cm ³	1.8
Hardness (Type A)		75
Tensile strength	MPa	2.9
Adhesion strength ^{*1}	MPa	2.0
Thermal conductivity ^{*3}	W/m.K	0.85
Volatile siloxane ^{*2} (D ₄ -D ₁₀)	ppm	<100
Volume resistivity	Ω·cm	7.8×10 ¹³
Dielectric strength	kV/mm	26
Dielectric constant (60Hz)		4.1
Dissipation factor (60Hz)		0.04
Impurities ^{*2} ppm	Na ⁺ K ⁺ Cl ⁻	each <2

*1 Aluminum lap shear, 7days @ 23°C, 50%RH *2 In-house test method *3 Hot Wire method

Typical property data values should not be used as specifications.

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Adhesion Performance

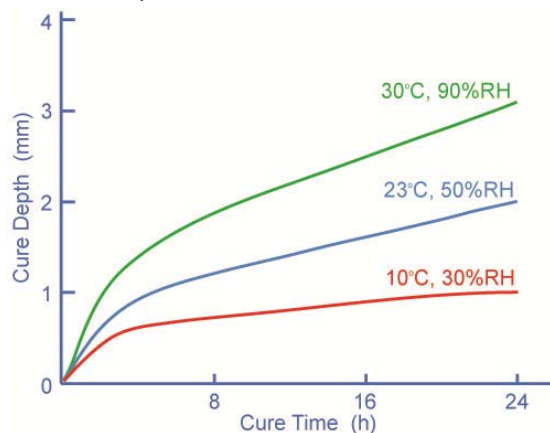
TN3088 adheres to a wide variety of substrates used in electronic components. The following matrix depicts adhesion performance to typical substrates. However, actual performance may vary depending on the substrate manufacturer or grade.

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

○: Good (cohesive failure) X: Adhesive failure

Cure Profile

TN3088 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 more time is required for the cure to extend to deeper sections. The cure depth of at various combinations of humidity and temperature are provided below.



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HANDLING AND SAFETY

- Wear eye protection and protective gloves at all times when working with this product.
- Maintain adequate ventilation in the work place at all times.

STORAGE

- Store in a cool, dry place out of direct sunlight
- Keep out of the reach of children.

PACKAGING

- 300ml cartridge
- 2.5L cartridge

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Momentive Performance Materials

<http://www.momentive.com>

Tokyo Head Office: Phone: +81-3-5544-3111

FAX: +81-3-5544-3122

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