

Silicone Potting Compound 047 (Thermally Conductive)

Professional two-component, addition-cure potting compound with medium viscosity and a consistency similar to liquid honey, easily fills even complex electronic assemblies. Once cured, it forms a soft white rubber (Shore A 20) that dampens vibrations and protects against moisture and dust. With a thermal conductivity of 1.5 W/mK, it effectively dissipates heat, extending the lifespan of power supplies, controllers, and automotive electronics.

Product features:

- ✓ thermal conductivity: ~1.5 W/mK,
- ✓ rubber-like consistency after curing,
- ✓ easy application and even distribution,
- ✓ safe formula for delicate electronic surfaces.

Applications:

- ✓ telecommunications,
- ✓ solar and photovoltaic systems,
- ✓ motion control systems,
- ✓ automotive electronics,
- ✓ electronic and electrical systems, optoelectronics,
- ✓ power supplies, energy converters, and power semiconductors.



Physicochemical properties (A & B)

Appearance	White liquid
Density at 25°C	~1.2 g/cm ³
Viscosity at 25°C	2500±500 cP (A) 3500±500 cP (B)
Shelf life	12 months

Properties of the Mixture 1:1 (A+B)

Viscosity at 25°C	2500±500 cP
Pot life at 25°C	~70 minutes
Gel time at 25°C	Max. 24h

Properties of the Mixture After 48h Curing

Consistency	White solid rubber
Thermal conductivity	~1.5 W/mK
Operating temperature range	-50°C to 180°C
Shore A hardness	20 A
Volume resistivity at 20±5°C and 65±5% RH (ASTM D257)	1.3*10 ¹¹ p _v Ω x m 1.3*10 ¹³ Ω x cm
Surface resistivity at 20±5°C and 65±5% RH (ASTM D257)	2.2*10 ¹³ p _s Ω x m
Dielectric loss factor tg δ (ASTM D150)	0.112 (120 Hz) 0.069 (1 kHz) 0.019 (10 kHz) 0.005 (100 kHz)
Relative permittivity ε _r (ASTM D150)	4.38 (120 Hz) 3.85 (1 kHz) 3.65 (10 kHz) 3.66 (100 kHz)
Dielectric strength (PN-EN 60243-1)	14.4 kV/mm
Comparative Tracking Index – CTI (PN-EN 60112:2003)	600 CTI [V]

Compatibility:

Silicone potting compound 047 is chemically neutral and safe for most materials, such as metals, plastics, and ceramics. Thanks to its properties, it works perfectly with electronic components, providing durable protection and effective heat dissipation.

Application method	
Without degassing	Yes
With degassing in a vacuum chamber	Yes

Usage instructions:

Restricted to professional users. Read SDS carefully prior to use.

Before application, ensure the system is clean, degreased, and dry to maximize adhesion and potting effectiveness. Mix the two components (Part A and Part B) in a **1:1** ratio and thoroughly combine them manually or mechanically until a uniform mass is achieved. The components in the sets are pre-measured in appropriate proportions: 100 g (50 g A + 50 g B) and 1 kg (500 g A + 500 g B) to simplify the mixing process.

For best results, place the prepared mass in a vacuum chamber (30-60 mm Hg) for about 5 minutes to remove air bubbles. During this process, the mass may temporarily increase in volume before returning to its original size. After degassing, wait an additional 2 minutes before application.

The prepared mixture should be evenly poured over the system, ensuring all elements are fully covered. Then, leave the potted system to cure at room temperature for about 24 hours, during which the mass will harden. For faster curing, the temperature can be increased up to 70°C, allowing the process to complete within 6 hours. After curing, the compound forms a white solid rubber consistency that effectively protects the system from external factors.

If a vacuum chamber is not available, the mixture can be applied without degassing. However, the final result will depend on the care taken during the application process.

Package

Metal can

100 g (ART.AGT-317) - 4 pcs.*
1 kg (ART.AGT-314) - 1 pc.*

*Quantity of pcs. in a bulk package.

Storage:

Store in the original, sealed packaging at a temperature between 5°C and 25°C.

Technical support:

AG TermoPasty provides technical support, answering questions about the technical specifications and applications of our products. Please contact us via email at info@termopasty.pl.

Note:

The data presented in this document reflect our current state of knowledge and describe the typical properties and applications of the product. However, the responsibility for determining the suitability of this product for specific applications lies with the user. AG TermoPasty is not liable for the results of the product's use, as the conditions of its application are beyond our control.

