

SINOSIL™ 9113 Addition-Cure RTV-2 Silicone Encapsulant

INTRODUCTION

SINOSIL™ 9113 is a two-part, platinum-catalyzed, thermally conductive liquid silicone rubber. It cures at elevated temperatures to form a soft, self-adhesive elastomer with excellent flow characteristics. Designed for potting and encapsulation of electronic components, it offers superior thermal management and electrical insulation.

BENEFITS

- Thermally conductive (up to 3.0 W/m·K)
- Primerless adhesion to many substrates
- Self-leveling and low viscosity for easy dispensing
- Excellent dielectric insulation
- Pot life ~60 min at 25°C
- Cures rapidly at elevated temperatures
- Gray color for visual inspection and contrast

PHYSICAL PROPERTIES

Color and Appearance	White/Grey liquid
Mixing Ratio (A/B)	1:1
Pot life (25°C, min)	60
Curing time (100°C, min)	120
Curing time (hrs)	24
Viscosity (A/B, mPa·s)	18,000/18,000

Properties Cured	
Appearance	Gray
Hardness (Shore A)	45
Dielectric Constant	7.9
Dielectric Strength	18 kV/mm
Volume Resistivity	$1 \times 10^{15} \Omega \cdot \text{cm}$
Thermal Conductivity	3.0 W/m·K

These values are typical and are not intended for use as specifications.

APPLICATIONS

- Potting and encapsulation of power modules
- Thermal interface materials (TIM) for automotive electronics
- EV battery components, LED drivers, and sensors
- General-purpose high thermal conductivity sealing

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PROCESSING GUIDE

Only components A and B with the same lot number should be used together. Prior to processing, both components must be stirred thoroughly in their original containers to ensure uniform dispersion of any settled fillers.

Surface Preparation

Ensure all substrates are clean and free from contaminants that may inhibit curing. Substances such as sulfur compounds, plasticizers, amines, urethanes, and organotin compounds can interfere with the platinum-catalyzed reaction. If substrate compatibility is uncertain, a small-scale test is recommended.

Mixing

To avoid premature gelling, tools used for handling Component A or the mixed compound must not contact Component B directly. Thoroughly mix both components at a 1:1 ratio by weight or volume. Degassing under vacuum is recommended to eliminate air entrapped during mixing or dispensing.

Curing

Cure time depends on temperature, part geometry, and the thermal mass of the substrate. Preliminary trials are recommended to optimize the curing cycle for specific applications.

PACKING

SINOSIL™ 9113 is supplied in 1kg kits, 20kg pails, or 200kg drums.

STORAGE

In the unopened original container, it has a shelf life of one year in a dry and cool place.

HANDLING

This document does not contain the product safety information required for safe use. Before handling, please refer to the product and safety data sheets, as well as container labels, for information on safe usage, physical hazards, and health risks. Safety Data Sheet is available on the website, from the distributor, or by contacting SiSiB customer service.

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NOTE

All information in the leaflet is based on our present knowledge and experience. We reserve the right to make any changes according to technological progress or further developments. Performance of the product described herein should be verified by testing.

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