SINOSIL™ 9120 Addition-Cure RTV-2 Silicone Encapsulant

INTRODUCTION

SINOSIL™-9120 is a two-component, platinum-catalyzed, thermally conductive silicone rubber designed for electronic potting and encapsulation. It cures at room or elevated temperatures to form a soft, elastic, and electrically insulating elastomer. With excellent flowability and low hardness, it is ideal for protecting delicate components while ensuring effective heat dissipation.

BENEFITS

- Excellent thermal conductivity (up to 2.0 W/m·K)
- Very good flowability
- Low hardness and elastic cured surface
- High electrical insulation performance
- Orange color for visual contrast
- RoHS-compliant and halogen-free formulation

PHYSICAL PROPERTIES

Color and Appearance	White/Orange liquid
Mixing Ratio (A/B)	1:1
Pot life (25°C, min)	60
Curing time (80°C, min)	30
Curing time (hrs)	24
Viscosity (A/B, mPa·s)	6,000/5,800

Properties Cured	
Appearance	Orange
Hardness (Shore A)	55
Dielectric Constant	10.0
Dielectric Strength	10-12 kV/mm
Volume Resistivity	1×10^{15} Ω·cm
Thermal Conductivity	1.9-2.0 W/m·K

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

APPLICATIONS

- Potting and encapsulation of sensitive electronic components
- Thermal interface for modules in power supply, automotive, and LED
- Consumer electronics and sensor protection
- Areas requiring soft, stress-relieving but heat-dissipating materials

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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™ 9120 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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