

SiSiB® MR20100 Addition Cure RTV-2 Silicone Rubber for Moldmaking

INTRODUCTION

SiSiB® MR20100 is a two-component, platinum-catalyzed addition cure RTV-2 silicone rubber developed for moldmaking applications.

SiSiB® MR20100 is supplied as Part A and Part B. When mixed at a ratio of 1:1 (A:B) by weight, the material cures at room temperature to form a transparent, flexible silicone elastomer suitable for soft mold fabrication and fine detail reproduction.

KEY FEATURES

- Good flowability
- Low hardness
- Low shrinkage
- 1:1 mix ratio
- Room temperature curing

PHYSICAL PROPERTIES

Uncured	
Appearance	Liquid
Color	Translucent
Proportion (A:B)	1:1
Mixing viscosity (23°C) cps	3,000-3,500
Pot Life (23°C) min	30-45

Cured (23°C / 24 h)	
Hardness (Shore A)	0
Tensile Strength (MPa)	2.5
Elongation at Break (%)	450
Tear Strength (N/mm)	6

Typical values are not intended for specification purposes.

APPLICATIONS

SiSiB® MR20100 is used for soft mold fabrication and detailed reproduction.

Typical applications include:

- Label manufacturing
- Mold fabrication for toys, crafts and decorative components

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PROCESSING GUIDE

Mixing

Part A and Part B of SiSiB® MR20100 should be mixed thoroughly at a ratio of 1:1 by weight until a homogeneous mixture is obtained. Mixing may be performed manually or using low-speed mechanical equipment to minimize air entrapment. Metering and dispensing systems may also be used.

Working Time

Working time is influenced by ambient temperature. Higher temperatures reduce pot life and accelerate curing. Lower temperatures extend working time but also increase overall cure time. For consistent processing results, temperature control is recommended.

Vacuum Degassing

After mixing, the material is preferably degassed under vacuum (30-50 mbar) to remove entrapped air. During vacuum application, the mixture may expand to approximately 3-4 times its initial volume before collapsing. Degassing typically requires 5-10 minutes. A container with sufficient headspace (3-4 times the initial mixture volume) is recommended.

Curing

SiSiB® MR20100 cures at room temperature. Cure rate increases with temperature and may be accelerated by applying heat. Under normal processing conditions, the addition cure reaction does not generate significant exotherm, helping maintain dimensional stability of the mold.

Certain substances may inhibit platinum-catalyzed addition cure systems, including:

- Sulfur or sulfur-containing materials
- Tin-catalyzed RTV silicones
- PVC stabilized with tin salts
- Amine-cured epoxy systems
- Certain organic solvents (e.g., ketones, alcohols, ethers)

Compatibility testing is recommended when necessary.

PACKING

SiSiB® MR20100 is supplied in 20Kg or 200Kg drum.

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STORAGE

When stored in original unopened containers below 30°C in a dry and cool environment, SiSiB® MR20100 has a shelf life of 12 months from the date of manufacture. Containers should be tightly sealed after opening.

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.

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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