



Brand Calsil
Market Machinery and Equipment
Product name RTV PA 501

1. Product Description

It's a pourable bi-component RTV-2 silicone rubber, vulcanizing at room temperature with a poly-addition process without shrinkage.t.

2. Key Properties

- Transparency
- Good optical transmission
- High resistant in all circumstances
- Thermo-stable

3. Benefits

- Good pourability
- For easy filling and good reversion resistance in confined spaces

4. Applications

It used in coating or potting protection of electronic components and electro-technical equipment

Typical Properties (not for sales specifications, please contact us prior to writing sales specs)

Properties	Units	Values
Chemical characterization		Addition cured RTV-2
Aspect part A		Fluid / colorless
Aspect part B		Fluid / colorless
Viscosity Part A	mPa.s	4000
Viscosity Part B	mPa.s	500
Odour		odorless
Solubility		Not mixable in water, dispersible in most of solvents

Curing Properties	Units	Values
Mix Ratio		100:10
Working time (temp. 23°C)	Minutes	90
Setting time (temp. 23°C)	Hours	24 ÷ 48
Setting time (temp. 100°C)	Hours	2

Properties of the cross linked product:	Units	Values
Hardness	Shore A	50 ± 3
Specific gravity	g/cm ³	1.02 ± 0.02
Elongation	%	100
Tensile strength	MPa	4.0 ± 0.3

Dielectric Properties:	Units	Values
Dielectric Strength (Standard AFNOR NF C 26 230 and IEC250)	kV/mm	20
Dielectric Constant at 1 kHz (Standard AFNOR NF C 26 230 and IEC250)		Approx. 2.7
Power Factor at a 1 kHz (Standard AFNOR NF C 26 230 et IEC250)		Approx. 0.5x10 ⁻³
Volume Resistivity (Standard AFNOR NF C 26 215 et IEC93)	Ω.cm	1x10 ¹⁴

5. How to Use

Make sure that the model to duplicate is perfectly clean and dry. Before using, shake well the bottles of part A and B. Weigh the same quantity of part A and B. If the proportions are not exact, the curing times and the final properties can be different.

Mix about a minute until a homogeneous color is obtained, then pour the mixture. To reduce air bubbles, we suggest a vacuum de-airing treatment before pouring the silicone rubber, compatible with the curing times. Before casting, vacuum degassing (20-30 mm of mercury) is recommended.

Release the vacuum several times. To achieve this, the container should allow an expansion of the fluid at about 3-5 times the initial level. Avoid prolonged degassing too, so as not to volatilize certain components required for curing. In the case of a high thickness coating operation, the casting must be made at the lowest point in the volume to be filled; this avoids forming and including air bubbles in the volume.

The temperature influences the curing speed. We recommend to work in an isothermal place at 23°C. Higher temperatures accelerate the curing times, lower temperatures reduce them.

At 100°C the cured silicone can be demoulded after 2 hours. In order to reach the best performance of the moulds, we suggest waiting for 24 hours before using them..

Other recommendations:

- Some inhibitions to vulcanization process may occur when the silicone rubber get in contact with amines, plastilines, metal salts, sulphided, tin catalysts and poly-condensation silicone rubbers. To avoid any inhibition problems, we recommend a preliminary test for the compatibility of the silicone on the material to duplicate.

6. Handling

This document does not contain safety precautions. Before handling this material, please read the Material Safety Data Sheet, check the label on the container, and conform to the safety, physical and hazard guidelines and precautions. The Material Safety Data Sheet is available from your nearest Caldic office.

7. Storage and Shelf Life

The product, when stored under appropriate conditions, is stable and usable for 12 months. Beyond this date, we no longer guarantees that the products meet sales specifications.

We suggest to keep the products in their original packaging, well-closed at a temperature between +7°C and +27°C, in well-aired places.

Do not reverse the caps and put always the counter-caps in their packaging.

8. Packaging

CALSIL® RTV PA 501 part A is available pail kg 20 and kg. 5.

CALSIL® RTV PA 501 part B is available pail kg 2 and kg. 0,500.

9. Restrictions


This ingredient is solely proposed in the above listed applications.

It is not suitable to be used in medical, human injection, pharmaceutical or food applications.

10. Limited Warranty PLEASE READ CAREFULLY

- The information herein is offered in good faith. It is believed to be accurate at the time of shipment.
- It should not be used as a substitute for the customer's test, the customer bears the responsibility to ensure that the product matches the intended application is safe and achieves the desired benefits.
- The product warranty is limited to the refund value of the purchase or the replacement only when it is demonstrated that the product is out of the agreed sales specifications.
- Calsil is a registered trademark of Caldic B.V. All rights reserved.

For more information, please contact our nearest office

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