

# NEUKASIL RTV 22

Silicone Rubber  
addition-crosslinking

# altropol

## Main features

- high resistance to initial tearing and tear propagation
- very good flowability
- can be made thixotropic
- mixing ratio = 1 : 1
- quick through-curing

## Applications

- general mould making
- body cast

## Properties in the non-crosslinked state (approx. values)

		NEUKASIL RTV 22	NEUKASIL Crosslinker A 142	NEUKASIL Crosslinker A 156
Colour		white	orange	orange
Mixing ratio	p.b.w.	100	100	100
Density (20 °C)	g/cm <sup>3</sup>	1.10	1.10	1.10
Viscosity (25°C)	mPa·s	3,000	4,000	2,500

## Properties of the mixture and the cured product (approx. values)

Mixed viscosity	mPa·s		2,700	2,700
Pot life (1000 g)	minutes		5	30
Curing time (RT)*	hours		0.5	12
Hardness (24h, RT)	Shore A	DIN 53505	22	22
Service temperature, for a short time	°C		200	200
Tensile strength	MPa	DIN 53504	3.5	3.5
Elongation at break	%	DIN 53504	450	450
Resistance to tear propagation	N/mm	ASTM D 624 B	15	15

\*The vulcanization is temperature-dependent and can be accelerated considerably by heat supply.

**Important Note 1: The platinum catalyst is in NEUKASIL RTV 22.**

**Important Note 2: Use only identical batch numbers of A- and B-component.**

## How to process the material

For the preparation of a batch being ready for processing, add the required quantity of crosslinker to the rubber and stir the compound until it is homogeneous. See that as little air as possible gets into the compound while stirring.

## Thixotropic adjustment

By addition of the component NEUKASIL Thixotropic Agent SN 200, the silicone rubber can be made thixotropic for special applications, i. e. the compound is then no longer liquid and castable, but pasty and brushable. For this, add approx. 0.5 - 1.0 % of NEUKASIL Thixotropic Agent SN 200 to the already mixed components NEUKASIL RTV 22 and NEUKASIL Crosslinker A 142 or NEUKASIL Crosslinker A 156. The thixotropic effect will already set in after a short while.

When NEUKASIL RTV 22 is used as mould making material (production of negatives), there is no release agent required for demoulding. Should there still arise any problems, we recommend our NEUKADUR Release Agent SE New or NEUKADUR Release Spray P 6.

For release agents, please visit our homepage under <http://www.altropol.de/en/produkte/weitere-produkte/trennmittel>

NEUKASIL RTV 22 can also be adjusted as a sprayable variant. We are well prepared to place a guide formulation at your disposal on request.

For the production of multipart moulds and to avoid an adhesion of NEUKASIL RTV 22 to itself, use the same release agents. Treat the surface of the part already vulcanized with release agent, then cast the second part of the mould.

When processing polyester or other casting resins, we recommend keeping the moulds in the air for some hours or heating them up to 50 - 100°C for 1 to 3 hours. In this way, the casting resin components having penetrated the surface of the mould can escape again, and the stability of the mould as well as the number of casts are increased considerably.

#### **Compatibility with other materials**

NEUKASIL RTV 22 is well compatible with all common pattern materials such as wood, plaster, metals and plastic materials and provides perfect casts. Certain substances inhibit or decelerate the vulcanization of NEUKASIL RTV 22 which can be noticed by tacky surfaces or surfaces containing bubbles. To these substances belong among other things condensation-crosslinking silicones, organic rubbers, plasticizers, amines, heavy-metal compounds and sulphurous substances. High air humidity and water may also lead to disturbances. Under unfavourable circumstances, it may happen that also surfaces having been in contact with the mentioned substances lead to vulcanization faults. The same applies to certain modelling materials. In case of doubt, we recommend carrying out pretrials on a small scale.

#### **Vulcanization**

By vulcanization or cross-linking one understands the transition from liquid, castable silicone rubber to the tack-free, rubbery-elastic state. It begins after addition of the crosslinker, and there are no cleavage products whatsoever produced during this process. At 20 - 25 °C, the vulcanization is terminated to a large extent after 24 hours. The vulcanization speed is temperature-dependent and can be accelerated considerably by heat supply.

NEUKASIL RTV is the designation for „Room Temperature Vulcanizing“ 2-component silicone rubber systems of ALTROPOL KUNSTSTOFF GmbH.

#### **Form of delivery**

NEUKASIL RTV 22	1 kg	5 kg	25 kg	200 kg
NEUKASIL Crosslinker A 142	1 kg	5 kg	25 kg	200 kg
NEUKASIL Crosslinker A 156	1 kg	5 kg	25 kg	200 kg
NEUKASIL Thixotropic Agent SN 200	0.01 kg	0.05 kg	0.2 kg	5 kg

#### **Storage**

We recommend keeping the material in tightly closed original receptacles at temperatures of 20 - 25°C. When duly stored, the material can be used within the shelf life indicated on the labels (the first 2 digits of the batch number indicate the week, the 3rd digit indicates the year).

#### **Measure of precaution**

With the aid of the current safety data sheets, which contain physical, ecological, toxicological and other data relating to safety, the user can inform himself on the safe handling and storage of the products.

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Our technical service - in words, in writing or by trials - is given according to the current state of our knowledge. It does however not relieve the customer / user from the duty to check by himself if the products supplied by us are suitable for the intended processes and purposes. Application, use and processing of the products take place beyond our control possibilities and lie therefore exclusively in the area of responsibility of the processor. Any existing property rights of third parties are to be considered. We guarantee the perfect quality of our products in accordance with our general terms and conditions of business. When handling our products you have to observe the legal rules and the rules for the industrial hygiene. As for the rest, we refer to the corresponding safety data sheets.

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