

NEUKASIL RTV 29
Silicone Rubber
Addition-crosslinking

altropol

Main features

- very soft silicone rubber (Shore 00 30)
- very good flowability

Applications

- production of products for orthopaedics
- suitable for polyester, epoxides, wax
- casting of electric component parts
- production of parts, prototyping

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

		NEUKASIL RTV 29	NEUKASIL Crosslinker A 99
Colour		white	reddish brown
Mixing ratio	p.b.w.	100	5
Density (20 °C)	g/cm ³	0.98	0.95
Viscosity (20 °C)	mPa·s	4,000	140

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

Mixed viscosity	mPa·s		3,000
Pot life (RT) (1000 g)	minutes		180
Tack-free, depending on layer thickness (RT)	hours		24
Hardness	Shore 00	DIN 53505	30
Service temperature under air admission, briefly	max °C		180
Linear dimensional change	%		0.1
Resistivity	Ω cm	DIN 53482	10 ¹⁵
Dielectric strength	KV/mm	DIN 53481	22
Dielectric constant	ε r	DIN 53483	3.0
Dissipation factor	δ 60 Hz	DIN 53483	0.008

*RT = room temperature

Important: The platinum catalayst is in component A.

How to process the material

See that as little air as possible gets into the compound while stirring. To obtain a bubble-free vulcanized material, we recommend evacuating the crosslinker-containing formulation before continuing the processing. When the vacuum is created, the mixture may increase in volume by 3 to 4 times of its original volume under formation of bubbles. The process is finished when the bubbles have collapsed and the formulation has reobtained its original volume. Carefully pour the prepared material over the object to be cast. Take care that no air bubbles are generated on the surfaces of the master pattern. To prevent such a bubble formation, begin at the deepest point and continue the rising casting in a long stream.

Whenever working with addition-crosslinking silicone rubbers, see that the receptacles used are clean and dry. Furthermore, the surface of the object to be cast should as far as possible be dry and free from dirt. Certain substances may inhibit or decelerate the crosslinking of addition-crosslinking silicone rubbers. To these substances belong among other things condensation-crosslinking silicones, organic rubbers, plasticizers, amines, heavy-metal compounds and sulphurous compounds. 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.

Release Agents

When NEUKASIL RTV 29 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 or NEUKADUR Release Spray P 6.

For release agents, please visit our homepage under <http://www.altropol.de/en/and-more/release-agents.html>

For the production of multipart moulds and to avoid an adhesion of NEUKASIL RTV 29 to itself, use the same release agents. Treat the surface of the already vulcanized part of the mould with release agent, then cast the second part of the mould.

Vulcanization

By vulcanization or crosslinking 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 to a large extent finished after 24 hours. The vulcanization speed is temperature-dependent and can be accelerated considerably by heat supply.

NEUKASIL RTV is the designation for 2-component silicone rubber systems of the ALTROPOL KUNSTSTOFF GmbH vulcanizing at room temperature.

Form of delivery

NEUKASIL RTV 29	1 kg	5 kg	25 kg
NEUKASIL Crosslinker A 99	0.05 kg	0.25 kg	1.25kg

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.

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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