

NEUKASIL RTV 27

Silicone Rubber
addition-crosslinking

altropol

Main features

- low-viscous
- mean Shore hardness
- variable pot life

Applications

- general mould making
- coating of fabrics
- embedding material and material for electrical insulation

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

		NEUKASIL RTV 27	NEUKASIL Crosslinker A 43	NEUKASIL Crosslinker A 108
Colour		transparent	transparent	transparent
Mixing ratio	p.b.w.	100	10	10
Density (20 °C)	g/cm ³	1.10	1.1	1.1
Viscosity (20°C)	mPa·s	5,500	440	440

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

Mixed viscosity	mPa·s		4,500	4,500
Pot life (RT) (1000 g)	minutes		60	240
Curing time *	hours		24	24
Shore A-hardness (24h)	points	DIN 53505	42	42
Shore A –hardness (7d)	points	DIN 53505	45	45
Service temperature under air admission, briefly	max °C		180	180
Tensile strength	N/mm ²	DIN 53504	3.0	3.5
Elongation at break	%	DIN 53504	100	110
Resistance to tear propagation	N/mm	ASTM D 624 B	2.5	2.0
Linear dimensional change	%		0.1	0.1
Resistivity	Ω cm	DIN 53482	10 ¹⁵	10 ¹⁵
Dielectric strength	KV/mm	DIN 53481	22	22
Dielectric constant	ε r	DIN 53483	3.0	3.0
Dissipation factor	δ 60 Hz	DIN 53483	0.008	0.008

RT = room temperature

How to process the material

For the preparation of a formulation 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. To obtain a bubble-free vulcanized material, we recommend evacuating the crosslinker-containing formulation before continuing the processing. Certain substances may inhibit or decelerate the crosslinking of addition-crosslinking silicone rubbers. Such substances are among other things condensation-crosslinking silicones, organic rubbers, plasticizers, amines, heavy-metal compounds and sulphurous combinations. Also surfaces having been in contact with the mentioned substances may lead to vulcanization faults.

When the vacuum is created, the mixture expands by 3 – 4 times of its original volume under formation of bubbles. The degassing process is finished when the bubbles have collapsed and the formulation has reobtained its original volume. Avoid a longer stay of the crosslinker-containing formulation in the vacuum as otherwise you run the risk that portions of the crosslinkers are removed. Carefully cast the prepared material without enclosing bigger quantities of air again.

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When NEUKASIL RTV 27 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 the production of multipart moulds and to avoid an adhesion of NEUKASIL RTV 27 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.

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

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 27	1 kg	5 kg	25 kg
NEUKASIL Crosslinker A 43	0.1 kg	0.5 kg	2.5 kg
NEUKASIL Crosslinker A 108	0.1 kg	0.5 kg	2.5 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.

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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