

NEUKASIL RTV 20

Silicone Rubber
addition-crosslinking

altropol

Main features

- higher hardness
- very good flow properties
- high resistance to initial tearing and tear propagation
- variable pot lives

Applications

- mould making
- suitable for polyester, epoxies, wax
- casting of electric component parts
- production of parts, prototypes

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

		NEUKASIL RTV 20	NEUKASIL Crosslinker A 1	NEUKASIL Crosslinker A 2	NEUKASIL Crosslinker A 26
Colour		white	blue	blue or colourless	blue
Density 20 °C	g/cm ³	1.2	1.0	1.0	1.0
Viscosity 20 °C	mPas	100,000	4,500	800	700

Properties of the mixture (approx. values)

Mixing ratio	p.b.w.	100	10	10	10
Mixed viscosity	mPas		95,000	80,000	70,000
Pot life	(1000g) Minutes		60	90	120
Tack-free	(RT) Hours		24	24	24
Hardness	Shore A		55	55	55
Service temperature	°C		240	240	240
Tensile strength	N/mm ²		5.0	4.8	4.8
Elongation at break	%		200	350	370
Resistance to tear propagation	N/mm ²		15.0	15.0	16.0
linear shrinkage	%		0.1	0.1	0.1
Resistivity	Ω cm		10 ¹⁵	10 ¹⁵	10 ¹⁵
Dielectric strength	KV/mm		22	22	22
Dielectric constant	ε r		3.0	3.0	3.0
Dissipation factor	δ 60 Hz		0.008	0.008	0.008

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.

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Whenever working with addition-crosslinking silicone rubbers, take care that the receptacles used are clean and dry. Furthermore, the surface of the object to be moulded should be dry and free from dirt. Certain substances may inhibit or retard the crosslinking of addition-crosslinking silicone rubbers. Such substances are among others 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 modeling materials.

When NEUKASIL RTV 20 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 N or NEUKADUR Release Spray P 6. For the production of multipart moulds and to avoid an adhesion of NEUKASIL RTV 20 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.

The vulcanization of NEUKASIL RTV 20 begins after addition of the crosslinkers, 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.

Form of delivery

NEUKASIL RTV 20	1*; 5 and 25 kg
NEUKASIL Crosslinker A 1, A2	0.1*; 0.5 and 2.5 kg
NEUKASIL Crosslinker A 26	0.1*; 0,5a 2.5 kg

*= minimum order quantity: 6 working packages

Storage

The material should be kept in tightly closed original receptacles at temperatures of 15 - 25 °C. When duly stored, the materials can be used within the shelf life indicated on the labels. If stored for a longer period of time, the crosslinkers produce a slight sediment in the receptacle which does however not affect the usability.

Measure of precaution

Users should make use of the current safety data sheets, which contain physical, ecological, toxicological and other data relating to safety, to inform themselves 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 you from the duty to check by yourselves 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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