NEUKASIL RTV 1703

Silicone Rubber

Condensation-crosslinking

altropol

Main features

- high resistance to initial tearing and tear propagation
- can be made thixotropic
- good flow properties
- crosslinkers mixable with each other for an adjustment of individual pot lives

Applications

- mould making, artistic casting
- suitable for epoxy resins, polyurethanes, wax

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

		NEUKASIL RTV 1703 Comp. A	NEUKASIL RTV 1703 Comp. B1	NEUKASIL RTV 1703 Comp. B2	NEUKASIL Thixotropic Agent SI - C
Colour		white	colourless	colourless	colourless
Mixing ratio	p.b.w.	100	5	5	0.1 – 1.0
Density 20 °C	g/cm³	1.22	0.98	0.98	0.98
Viscosity 20°C	mPa·s	25,000	80	60	70

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

Mixed viscosity	mPa·s		20,000	16,000	thix
Pot life	(1000 g) minutes		100	20	
Demouldable depending on layer thickness RT	hours		24	12	
Hardness	(24 h) Shore A	DIN 53505	20	21	
Hardness	(7 d) Shore A	DIN 53505	23	23	
Service temperature/ short-term	°C		150	150	
Tensile strength	MPa	DIN 53504	4	3.5	
Tensile elongation	%	DIN 53504	800	750	
Resistance to tear propagation	N/mm	ASTM D 624 B	>20	>20	
Linear dimensional change	%		1	1	

* 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.

Crosslinkers mixable with each other

NEUKASIL RTV 1703 Comp. B 1 and NEUKASIL RTV 1703 Comp. B 2 can be mixed with each other for an individual adjustment of the pot life.

Example: 100 p.b.w. of NEUKASIL RTV 1703 Comp. A mixed with 2.5 p.b.w. of NEUKASIL RTV 1703 Comp. B 1 and 2.5 p.b.w. of NEUKASIL RTV 1703 Comp. B 2 result in a pot life of approx. 32 minutes.

When the vacuum is created, the mixture increases in volume by 3 to 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 parts of the crosslinkers will be removed. Carefully cast the prepared material without enclosing bigger quantities of air again.

Thixotropic Adjustment

By addition of the component NEUKASIL Thixotropic Agent SI-C, the silicone rubber can be made thixotropic for special applications, i. e. the compound is then no longer liquid and castable, but brushable to pasty. For this, add to the already mixed compound of NEUKASIL RTV 1703 incl. crosslinker approx. 0.1 to 1.0 % of NEUKASIL Thixotropic Agent SI-C. The thixotropic effect already occurs after a short period of time.

When NEUKASIL RTV 1703 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 the production of multipart moulds and to avoid an adhesion of NEUKASIL RTV 1703 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.

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

Form of delivery

NEUKASIL RTV 1703 Comp. A	1.00 kg	5.00 kg	25.00 kg	200.00 kg
NEUKASIL RTV 1703 Comp. B1	0.05 kg	0.25 kg	1.25 kg	
NEUKASIL RTV 1703 Comp. B2	0.05 kg	0.25 kg	1.25 kg	
NEUKASIL Thixotropic Agent SI-C	0.01 kg	0.05 kg	0.20 kg	5.00 kg

Storage

We recommend keeping the material in tightly closed original receptacles at temperatures of 15 - 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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