NEUKASIL RTV 230

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
- lifecasting
- production of moulds for chocolate, marzipan and similar
- compliant with FDA 21 CFR 177.2600 and BfR-Recommendation XV „Silicones“

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

		NEUKASIL RTV 230	NEUKASIL Crosslinker A 149
Colour		translucent	colourless / orange / reddish brown
Mixing ratio	p.b.w.	100	100
Density (20 °C)	g/cm³	1.1	1.1
Viscosity (25 °C)	mPa·s	5,000	5,000

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

Mixed viscosity	mPa·s		5,000
Pot life (RT) (1000g)	minutes		40
Curing time RT	hours		24
Shore A-hardness (24h)	points	DIN 53505	28
Shore A-hardness (7d)	points	DIN 53505	30
Service temperature under air admission, briefly	max. °C		200
Tensile strength	MPa	DIN 53504	4.5
Elongation at tear	%	DIN 53504	350
Resistance to tear propagation	N/mm	ASTM D 624 B	20
Linear dimensional change	%		0.1
Resistivity	Ω cm	DIN 53 482	10^{15}
Dielectric strength	KV/mm	DIN 53 481	22
Dielectric constant	E_r	DIN 53 483	3.0
Dissipation factor	tan δ 60 HZ	DIN 53 483	0. 008

* RT = room temperature

Important Note: The platinum catalyst is in NEUKASIL RTV 230.

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.

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

When NEUKASIL RTV 230 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. To produce multipart moulds and to avoid an adhesion of NEUKASIL RTV 230 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.

Compatibility with other materials

NEUKASIL RTV 230 is well compatible with all common pattern materials such as wood, plaster, metals and plastics and provides perfect casts.

Certain substances inhibit or decelerate the vulcanization of NEUKASIL RTV 230, 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.

Longer pot life

By addition of 10 % of NEUKASIL Retarder SN 2884 to the Crosslinker A 149, you can extend the pot life by 30 minutes. We recommend mixing the NEUKASIL Retarder SN 2884 into the Crosslinker A 149 beforehand and adding then NEUKASIL RTV 230.

Thixotropic adjustment

By addition of the component NEUKASIL 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, brushable. For this, add approx. 0.5 to 1.5 % of NEUKASIL SN 200 to the already mixed components NEUKASIL RTV 230 and the NEUKASIL Crosslinker A 149 reddish brown. The thixotropic effect already occurs after a short period of time.

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

Consumer Goods

The Federal Institute for Risk Assessment in Berlin (BfR) treats in Recommendation XV "Silicones" dated 2014-10-01 silicone polymers (silicone oils, silicone resins, silicone elastomers).

The NEUKASIL RTV 230 addition system complies in its material composition with paragraph III of Recommendation XV „Silicones“ of the BfR.

Furthermore, we recommend to carry out application-related tests.

Form of delivery

NEUKASIL RTV 230	1 kg	5 kg	25 kg	200 kg
NEUKASIL Crosslinker A 149 colourless, orange or reddish brown	1 kg	5 kg	25 kg	200 kg
NEUKASIL Thixotropic Agent SN 200	0.01 kg	0.05 kg	0.2 kg	5 kg
NEUKASIL Retarder SN 2884	0.05 kg	0.25 kg	1.25 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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