NEUKASIL RTV 102

Silicone Rubber condensation-crosslinking



Main features

- high resistance to initial tearing and tear propagation
- good flowing properties
- can be made thixotropic

Applications

- mould making
- suitable for polyester, epoxies, wax
- concrete cast

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

| | | NEUKASIL RTV 102 | NEUKASIL Crosslinker C 02 | NEUKASIL Crosslinker C 02 S |
|----------------|-------|---------------------|------------------------------|--------------------------------|
| Colour | | white | colourless | colourless |
| Density 20 °C | g/cm³ | 1.10 | 0.92 | 0.95 |
| Viscosity 20°C | mPas | 35,000 | 16 | 100 |

Properties of the mixture (approx. values)

| Mixing ratio | p.b.w. | 100 | 5 | 5 |
|--------------------------------|-----------------|-----|-----------|--------|
| Mixed viscosity | mPas | | 24,000 | 32,000 |
| Pot life | (1000g) Minutes | | 100 | 30 |
| tack-free | Hours | | 15 - 20 | 8 - 10 |
| Hardness (24h) | Shore A | | 13 | 17 |
| Hardness (7d) | Shore A | | 21 | 19 |
| Service temperature | °C | | 180 | 180 |
| Tensile strength | N/mm² | | 3.0 | 2.5 |
| Elongation at break | % | | 1,100 | 1,000 |
| Resistance to tear propagation | N/mm | | 20 | 20 |
| Linear shrinkage | % | | 1 +/- 0.3 | * |

How to process the material

For the crosslinking of NEUKASIL RTV 102 serve the crosslinkers NEUKASIL C 02 or C 02-S. The mixing ratio on 100 parts by weight of NEUKASIL RTV 102 is 5 parts by weight of crosslinker C 02 or C 02-S each. 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.

To adjust an individual Shore A hardness, NEUKASIL RTV 102 can be mixed in any ratio desired with NEUKASIL RTV 103.

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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.

Release agents

When NEUKASIL RTV 102 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 102 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.

| Form of delivery | | |
|---------------------------------------|--------------------------|--|
| NEUKASIL RTV 102 | 1*; 5 and 25 kg | |
| NEUKASIL Crosslinker C 02, C 02 S | 0.05* ; 0,25 and 1.25 kg | |
| *=minimum order quantity: 6 working p | ackages | |

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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