

SILISIL RTV MF-Ultra 50 Addition-Crosslinking

Description:

SILISIL RTV MF-Ultra 50 is a pourable, room temperature vulcanizing 2-component additive silicone (RTV 2).

The product offers the following advantages:

- Very high tear and tensile strength
- High dimensional stability and precision in detail reproduction
- Excellent chemical resistance to resin components
- Temperature resistant from -40 °C to +200 °C
- High resistance to aging and wear
- Excellent non-stick properties
- Minimal shrinkage (≤ 0.05 %)

Main areas of application:

- Mold and model making (for highest reproduction accuracy and mechanical strength)
- Screen printing on ceramics (suitable for laser engraving and precise structures)
- Art and fine ceramics
- Jewelry and design casting

Surface preparation:

The surfaces to be reproduced must be clean, dry, and dust-free. Ideally, work at room temperature (approx. 23 °C) to ensure consistent processing and curing times. A release agent should be applied before pouring epoxy, polyester, and polyurethane resins into silicone molds. For aggressive resins, application is recommended with each pour.

Mixture and application:

1. **Preparation:** Shake or stir both components (base and catalyst) well before use to ensure a homogeneous consistency.
2. **Mixing:** Weigh the base and catalyst precisely **by weight in a 1:1 ratio** (maximum tolerance ± 5 %). Mix the components thoroughly, carefully incorporating the mixture into the container walls and bottom.
3. **Venting:** For optimal results, it is recommended to vent the mixture under vacuum after mixing to remove any trapped air bubbles.
4. **Processing:** Pour the mixed silicone slowly, ideally from a height of about 30 cm, into the prepared mold to minimize air bubbles.
5. **Curing:** Vulcanization takes place at room temperature (23 °C). Demolding is possible after approximately 180 minutes. Note that lower temperatures significantly extend the pot life and curing time, while higher temperatures shorten them.

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Technical data:

Color (base)	Light grey
Color (catalyst)	Light grey
Paint (mixture)	Light grey
Viscosity of the mixture	20,000 mPa·s (Brookfield)
Density of the mixture	1.10 g/cm ³ (at 23 °C)
Mixing ratio	1:1 by weight
Pot life (at 23 °C)	approximately 15-20 minutes
Demolding time (at 23 °C)	approximately 180 minutes
Complete curing (at 23 °C)	approximately 24 hours
Hardness (Shore A)	approx. 50 (according to ASTM D 2240)
Tear resistance	>4.0 N/mm ² (according to ASTM D 412)
Elongation at break	approx. 320 % (according to ASTM D 412)
Tear resistance	approx. 12 N/mm (according to ASTM D 624)
Temperature resistance	-40 °C to 200 °C

Packaging:

SILISIL RTV MF-Ultra 50 is available as standard in 1 kg + 1 kg, 5 kg + 5 kg, 25 kg + 25 kg and 200 kg + 200 kg containers. Other container sizes are available upon request.

Safety instructions:

Before handling the product, read the safety data sheet and ensure that you have all the information required for safe use.

Important note:

This document contains information provided to the best of our knowledge and belief, based on the current state of our understanding. This information is for guidance only and does not constitute any obligation on our part, particularly in the event of an infringement of third-party rights through the use of our products. This information should be supplemented by preliminary testing to ensure the product's suitability for its intended purpose.