

# SILISIL RTV RP-Tough 45 DRY B Addition-Crosslinking

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## Description:

**SILISIL RTV RP-Tough 45 DRY B is a room-temperature vulcanizing, transparent, two-component, addition-based silicone (RTV-2). The material was specifically developed for applications requiring the highest mechanical strength, precision, and temperature tolerance. The product offers the following advantages:**

- Vulcanization at room temperature (23 °C)
- Very high tear strength and mechanical resistance
- Excellent detail reproduction, even of the finest structures.
- High chemical resistance to aggressive components of many resins
- Permanent dimensional stability
- Excellent aging and heat resistance (up to 300 °C)

## Main areas of application:

- Production of transparent molds with high dimensional accuracy
- Rapid prototyping (suitable for laser engraving, among other things)
- Concrete forming and technical molding processes

## Surface preparation:

Surfaces must be clean, grease-free, and dry to ensure optimal results. Contaminants such as sulfur, amine compounds, or tin residues can inhibit vulcanization.

## Mixture and application:

1. **Preparation:** Stir only component A vigorously before mixing.
2. **Mixing:** Then add component B to component A in a ratio of 1:10 by weight.
3. **Homogenize:** Mix both components thoroughly until a uniform mass is achieved.
4. **Ventilation:** It is recommended to de-air the mixed silicone under vacuum to remove air bubbles.
5. **Processing:** Pour the material slowly into the mold, ideally from a height of about 30 cm.
6. **Layered casting:** If there is not enough material for the entire mold, it can be topped up subsequently – within 24 hours (at max. 23 °C), without the layers separating from each other.
7. **Curing:** Pot life: approx. 90 minutes at 23°C, demolding time: approx. 15 hours at 23°C. Note that lower temperatures significantly extend the pot life and curing time, while higher temperatures shorten them.

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### Technical data:

<b>Color</b>	Component A: Transparent Component B: Translucent
<b>Viscosity Component A</b>	70,000 mPa·s (Brookfield)
<b>Viscosity Component B</b>	90 mPa·s (Brookfield)
<b>Viscosity of the mixture</b>	35,000 mPa·s (Brookfield)
<b>Mixing ratio</b>	10:1 by weight
<b>Density of the mixture</b>	1.12 g/cm <sup>3</sup> (at 23 °C)
<b>Pot life (at 23 °C)</b>	approximately 90 minutes
<b>Demolding time (at 23 °C)</b>	approximately 15 hours
<b>Complete curing (at 23 °C)</b>	approximately 24 hours
<b>Hardness (Shore A)</b>	approx. 43 ± 3 (according to ASTM D 2240)
<b>Tear resistance</b>	> 20 N/mm (according to ASTM D 412)
<b>Elongation at break</b>	approx. 400 ± 20 % (according to ASTM D 412)
<b>Tensile strength</b>	7.5 ± 0.5 N/mm <sup>2</sup> (according to ASTM D 624)
<b>Temperature resistance</b>	-40 °C to 300 °C

### Packaging:

SILISIL RTV RP-Tough 45 DRY B is available as standard in 1 kg + 100 g, 5 kg + 500g, and 25 kg + 2.5 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.